



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

MEETING MATERIALS

October 6, 2011

CALTRANS

BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION





Letter of Transmittal

TO: Toll Bridge Program Oversight Committee
(TBPOC)

DATE: September 28, 2011

FR: Program Management Team (PMT)

RE: TBPOC Meeting Materials Packet – October 6, 2011

Herewith is the TBPOC Meeting Materials Packet for the October 6th meeting. The packet includes memoranda and reports that will be presented at the meeting. A Table of Contents is provided following the Agenda to help locate specific topics.

TBPOC MEETING
October 6, 2011 10:00am – 1:00pm
Mission Bay Office, 325 Burma Road, Oakland
TBPOC-PMT pre-briefing: 10:00am – 11:00am
TBPOC meeting: 11:00am – 1:00pm

	Topic	Presenter	Time	Desired Outcome
1.	CHAIR'S REPORT	S. Heminger, BATA	5 min	Information
2.	CONSENT CALENDAR			
	a. TBPOC Meeting Minutes: 1) September 8, 2011 Meeting Minutes*	A. Fremier, BATA		Approval
	b. Contract Change Orders (CCOs): 1) YBITS No. 1 CCO 904 (BASE Microwave Transmission System)*	D. Noel, CTC		Approval
3.	PROGRESS REPORTS			
	a. Draft Project Progress and Financial Update September 2011**	P. Lee, BATA	5 min	Approval
4.	SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES			
	a. Seismic Safety Opening (SSO) Schedule*	T. Anziano, CT	15 min	Information
	b. Self-Anchored Suspension Span (SAS) 1) Update*	T. Anziano, CT	5 min	Information
	c. Yerba Buena Island Transition Structure (YBITS) No. 1 1) Update*	T. Anziano, CT	5 min	Information
	2) Hinge K Update*	T. Anziano, CT	15 min	Information
	d. Oakland Detour 1) Bridge Closure*	B. Maroney, CT	15 min	Information
	2) Communications Plan*	B. Ney, CT	10 min	Information
	e. Oakland Touchdown (OTD) No. 2*	T. Anziano, CT	5 min	Information
	f. Existing SFOBB Demolition 1) Environmental Re-evaluation*	T. Anziano, CT	10 min	Information
	2) E1 Demolition*	P. Lee, BATA	10 min	Information
5.	ANTIOCH/ DUMBARTON BRIDGE SEISMIC RETROFIT UPDATES			
	a. Update*	J. Weinstein, BATA	5 min	Information
6.	OTHER BUSINESS			

Final Agenda

	Topic	Presenter	Time	Desired Outcome
Next TBPOC Meeting: November 3, 2011, 10:00 AM – 1:00 PM Mission Bay Office, 325 Burma Road, Oakland				

- * Attachments
- ** Stand-alone document included in the binder
- *** To be sent under separate cover

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1	1	CHAIR'S REPORT
2	2	CONSENT CALENDAR a. TBPOC Meeting Minutes 1) September 8, 2011 Meeting Minutes* b. Contract Change Orders (CCOs): 1) YBITS No. 1 CCO 904 (BASE Microwave Transmission System)*
3	3	PROGRESS REPORTS a. Draft Project Progress and Financial Update September 2011**
4	4	SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Seismic Safety Opening (SSO) Schedule* b. Self-Anchored Suspension (SAS) Span 1) Update* c. Yerba Buena Island Transition Structure (YBITS) No. 1 1) Update* 2) Hinge K Update* d. Oakland Detour 1) Bridge Closure* 2) Communications Plan* e. Oakland Touchdown (OTD) No. 2* f. Existing SFOBB Demolition 1) Environmental Re-evaluation* 2) E1 Demolition*
5	5	ANTIOCH/DUMBARTON BRIDGE SEISMIC RETROFIT UPDATES a. Update*

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TBPOC MEETING October 6, 2011

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6	6	OTHER BUSINESS

- * Attachments
- ** Stand-alone document included in the binder
- *** To be sent under separate cover

ITEM 1: CHAIR'S REPORT

No Attachments

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 28, 2011

FR: Andrew Fremier, Deputy Executive Director, BATA

RE: Agenda No. - 2a1
Consent Calendar
Item- TBPOC Meeting Minutes
September 8, 2011 Meeting Minutes

Recommendation:

APPROVAL

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

The Program Management Team has reviewed and requests TBPOC approval of the September 8, 2011 Meeting Minutes.

Attachment(s):

September 8, 2011 Meeting Minutes



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

MEETING MINUTES

September 8, 2011, 2:30pm – 5:00pm

Mission Bay Office, 325 Burma Road, Oakland

TBPOC – PMT pre-briefing: 2:30pm – 3:30pm

TBPOC meeting: 3:30am – 5:00pm

Attendees: TBPOC Members: Steve Heminger (Chair), Bimla Rhinehart, and Malcolm Dougherty
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Ade Akinsanya, Bill Casey, Michele DiFrancia, Rich Foley, Mike Forner, Ted Hall, Beatriz Lacson, Richard Land, Brian Maroney, Bart Ney, Dina Noel, Bijan Sartipi, Jack Siau, Jon Tapping, Ken Terpstra, and Jason Weinstein
Part Time: Eric Cordoba (SFCTA); Michael Tymoff and Kelly Pretzer (SF Mayor's Ofc); Sam Chui and Corey Lang (AECOM)

Convened: 3:48 PM

Items		Action
1.	CHAIR'S REPORT <ul style="list-style-type: none">The Chair welcomed Vice Chair B. Rhinehart back from a personal leave of absence.	
2.	CONSENT CALENDAR <ul style="list-style-type: none">a. TBPOC Meeting Minutes<ul style="list-style-type: none">1) May 5, 2011 Meeting Minutesb. Contract Change Orders (CCOS):<ul style="list-style-type: none">1) SAS CCO 73 (Bike Path Conduit Modifications), not to exceed \$1,600,0002) SAS CCO 179 (Skyway Bike Path Railing Modifications – For Information Only - Final), \$3,065,5953) YBITS 1 CCO 1-S3 (Maintain Traffic on Macalla Road), \$1,500,0004) YBITS 1 CCO 76-S1 (OTD Seismic Joints), not to exceed \$3,000,0005) YBITS 1 CCO 100-S0, \$1,767,613; 100-S1, not to exceed \$500,000,	<ul style="list-style-type: none">The TBPOC APPROVED the Consent Calendar without Items 2b1 and 2b2, as presented.Items 2b1 and 2b2 were removed (for discussion) and APPROVED by the TBPOC outside of the Consent Calendar.

(continued)

Items	Action
<p>(Hinge K Seismic Expansion Joints)</p> <p>c. 2012 TBPOC Meeting Calendar</p>	
<p>3. PROGRAM ISSUES</p> <p>a. Yerba Buena Island Ramps</p> <ul style="list-style-type: none">• T. Anziano introduced the San Francisco team working on the Yerba Buena Island Ramps with whom the Department has been coordinating to ensure no conflicts occur with the new East Span project. San Francisco has developed a schedule that avoids conflicts with the East Span construction.○ E. Cordoba (Project Manager, San Francisco County Transportation Authority) gave a presentation on “Yerba Buena Island Ramps Improvements” which covered Project Overview, Preferred Alternative, EIR/EIS Update, Cost/Funding Review, Schedule, and Other Planned YBI Improvements. M. Tymoff (SF Mayor’s Office) gave a more detailed presentation on the bicycle-pedestrian concepts at YBI ramps and Treasure Island (TI) – part of the larger TI redevelopment plan.○ Discussion items included: coordination with the Department and the U.S. Coast Guard; schedule comparisons; I-80 access during construction; seismic retrofit of bridges on the west-side of YBI; environmental processing; improvements on TI/Ferry Terminal area; costs and funding. <p>b. SFOBB West Span Pathway Project Initiation Document (PID) Update</p> <ul style="list-style-type: none">○ P. Lee reported that the first public outreach meeting for release of the PID is being planned by BATA	

(continued)

Items	Action
<p>during the first week of October. This project will tie into the east span pathway and the improvements proposed on TI.</p> <ul style="list-style-type: none">○ The update included the PID timeline, preliminary cost estimates, funding, approach alternatives in San Francisco and on Yerba Buena Island, and recommended pathway. <p>c. Gateway Park Transportation Enhancements (TE) Funding Application</p> <ul style="list-style-type: none">• S. Maller gave a brief background. He reported that the TBPOC member agencies have taken a role in developing TE funding applications for the Gateway Park project, with the Department as lead on the application for \$25M in Interregional Transportation Improvement Program (ITIP) funds, and BATA/MTC as lead on the application for \$25M in Regional Transportation Improvement Program (RTIP) funds.○ Discussion items included: Phase 1 estimated cost; funding sources; City of Oakland role; next phase.• The Chair pointed out that the TBPOC has not agreed to a \$200M project, and that spending toll bridge funds for a project such as this requires further discussion.	<ul style="list-style-type: none">• Staff to report back to the TBPOC in October for a closer look at the project and next steps.
<p>4. PROGRESS REPORTS</p> <p>a. TBSRP 2nd Quarter 2011 Risk Management Update</p> <ul style="list-style-type: none">• J. Tapping gave an overview of the risk management results during the second quarter 2011 in a Risk Management Briefing covering Adequacy of Reserves, Summary of Cost Risk Results/Changes, Program Contingency Trend, Top Corridor	

(continued)

Items	Action
<p>Schedule Risks, Top Cost Risks, and Look Ahead to Q3 2011.</p> <ul style="list-style-type: none"> ○ The increase and decrease in cost risks this quarter have largely offset each other. ○ The Potential Draw in Program Contingency Curve includes scope changes/architectural enhancements approved by the TBPOC but excludes those that have not yet been approved by the TBPOC. <ul style="list-style-type: none"> ➤ The Program Contingency currently shows a balance of \$308M with a probable draw of \$200M. ➤ A substantial increase to the probable draw on Program Contingency may result if all of listed potential improvements are approved by the TBPOC. ➤ As the project draws toward the finish line, the TBPOC suggested having a chart that shows how the Program Contingency was spent and what portion was spent buying time. <p>b. August 2011 Project Progress and Financial Update</p> <ul style="list-style-type: none"> • P. Lee reported that the August 2011 monthly report was approved by the PMT through a TBPOC-delegated authority. TBPOC confirmation of this approval was requested. 	<ul style="list-style-type: none"> • Staff to develop a chart that reflects milestones on how the Program Contingency was spent and how much of it was used to buy time. • The TBPOC confirmed APPROVAL of the August 2011 Project Progress and Financial Update.
<p>5. SAN FRANCISCO-OAKLAND BAY BRIDGE (SFOBB) UPDATES</p> <p>a. Self-Anchored Suspension (SAS) Span</p> <ol style="list-style-type: none"> 1) Update <ul style="list-style-type: none"> • Not discussed. <p>b. Yerba Buena Island Transition Structure (YBITS) No. 1</p> <ol style="list-style-type: none"> 1) Update <ul style="list-style-type: none"> • T. Anziano reported that work on the project is delayed but still ahead of 	<ul style="list-style-type: none"> • Staff to present to the TBPOC a visually oriented pictogram

(continued)

[illegible]

Adjourned: 5:15 PM

(continued)

TBPOC MEETING MINUTES
September 8, 2011, 2:30pm – 5:00pm

APPROVED BY:

STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority

Date

BIMLA G. RHINEHART, TBPOC Vice-Chair
Executive Director, California Transportation Commission

Date

MALCOLM DOUGHERTY
Acting Director, California Department of Transportation

Date

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 28, 2011

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 2b1

Item- Consent Calendar

Contract Change Orders (CCOs)

Yerba Buena Island Transition Structure (YBITS) #1 CCO No. 904 –

Furnish & Install BASE Microwave Transmission System

Recommendation:

APPROVAL

Cost:

\$1,200,000.00

Schedule Impacts:

N/A

Discussion:

CCO 904 in the amount of \$1,200,000 is necessary to furnish and install a Bay Area Security Enhancement (BASE) microwave transmission system for the SFOBB East Span.

This change order will provide a 150/45-megabit microwave system licensed under the Federal Communications Commission (FCC) to serve as both the primary system, transmitting video feeds to the Department's Oakland office, and the system's redundancy. The current system is at a very low frequency, not licensed by the FCC, and incapable of supporting the new east span replacement bridge BASE system, which will have more than 150 cameras.

This work was not included in the original SFOBB MEP Integration Strategy budget approved by the TBPOC in November 2008. Originally, the work was going to be done under various existing service contracts maintaining the region-wide system. However, it has now been determined that the full scope of the work is greater than the capacity of the maintenance service contracts. Adding this work to the YBITS#1 contract will ensure the east span corridor is fully equipped to handle the new BASE system. The estimated cost of \$1,200,000 will be covered by the \$1,300,000 in contingency toll bridge

Memorandum

rehabilitation funds, part of the \$3,900,000 approved by the TBPOC for the YBITS#1 contract for BASE work, see Attachment 3, MEP Integration Strategy, item D.

Risk Management:

The scope of work for the MEP-BASE integration is not carried in the Risk Register because it is funded with toll bridge rehabilitation funds, which are outside of the Toll Bridge Seismic Retrofit Program.

Attachment(s):

1. Draft CCO: 904-S0
2. Draft CCO Memorandum: 904-S0
3. SFOBB MEP Integration Strategy

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO 904	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID
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To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Force Account:

Provide labor, equipment and material necessary to furnish, install and test microwave radio system as directed by the Engineer. This work will include, but is not limited to what is described below:

Investigate site selection for new sites; analysis of existing sites for re-use or modification; determining the best locations for poles, antennas, radios, switches, fiber runs once the sites are selected.

All necessary work for providing 150 and 45 megabit, FCC licensed microwave systems (hops) for the transport of Ethernet streams (primary and redundant) paths from the East Span and other bridges.

Furnishing and installing all necessary equipment such as radios, antennas, conduits and wiring.

Testing and commissioning of the entire microwave system installed under this change order.

Estimated cost of Extra Work at Force Account\$1,200,000.00

This work will be paid for in accordance with Section 5-1.17 "Force Account Payment" of the Special Provisions and Section 4-1.03D "Extra Work" of the Standard Specifications.

Estimated Cost: Increase ☒ Decrease ☐ **\$1,200,000.00**

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by

Signature	Resident Engineer William Howe, Senior R.E.	Date
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Approval Recommended by

Signature	Principal T.E. Mike Forner	Date
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Engineer Approval by

Signature	Principal T.E. Mike Forner	Date
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We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)	Date
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CONTRACT CHANGE ORDER MEMORANDUM

DATE: 9/26/2011 Page 1 of 1

TO: Deanna Vilcheck, ACM /		FILE: E.A. 04 - 0120S4	
FROM: William Howe, Senior R.E.		CO-RTE-PM SF-80-12.7/13.2	
		FED. NO. NO FED AID	
CCO#: 904	SUPPLEMENT#: 0	Category Code:	CONTINGENCY BALANCE (incl. this change) \$0.00
COST: \$1,200,000.00		INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>	HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
SUPPLEMENTAL FUNDS PROVIDED: \$0.00		IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Microwave BASE Communication System		PROJECT DESCRIPTION: YBITS-1 (Yerba Buena Island Transition Structures)	
Original Contract Time: 1390 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 0 Day(s)	Percentage Time Adjusted: (including this change) 0 %
			Total # of Unreconciled Deferred Time CCO(s): (including this change) 9

THIS CHANGE ORDER PROVIDES FOR:

This change order provides compensation to the contractor for costs to construct a microwave communication system for the Bay Area Security Enhancement (BASE) system. The work includes design and installation of a microwave communication system that will serve as primary connection to the District Office. The hard-wire (fiber) system only connects locally to an administrative building.

The design of the new SFOBB east span was completed prior to September 11, 2001; therefore no provisions for extensive security were included in the original design. The CHP has required the Department to enhance security on all Bay Area Toll Bridges under the BASE program. This change order implements the communication of data from the camera and sensor systems which will be installed for the BASE system.

This work will be paid for as extra work at force account at an estimated cost of \$1,200,000.00 and will be financed from the project's contingency fund, which was increased for this purpose as part of the second supplemental funds request and approved by the June 2011 TBPOC. A cost analysis is on file.

No adjustment of contract time is warranted, as this change will not affect the controlling operation.

This change was requested by, on

Concurred by ???

Maintenance concurrence ____.

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer: William Howe	Date		THIS REQUEST		TOTAL TO DATE
Bridge Engineer: Mehran Ardakanian	Date		ITEMS	\$0.00	\$0.00
Project Engineer: Bob Zandipour	Date		FORCE ACCOUNT	\$1,200,000.00	\$1,200,000.00
Project Manager: Ken Terpstra	Date		AGREED PRICE	\$0.00	\$0.00
FHWA Rep.:	Date		ADJUSTMENT	\$0.00	\$0.00
Environmental:	Date		TOTAL	\$1,200,000.00	\$1,200,000.00
Other (specify):	Date		FEDERAL PARTICIPATION		
Other (specify):	Date		<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:	Date		FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue/Approve) By:	Date		<input checked="" type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:	Date		FEDERAL FUNDING SOURCE PERCENT		

SFOBB MEP Integration Strategy (CONFIDENTIAL)

5-2-2011

	Segregation of Work	Nov 2008 Estimated Cost	Current Estimated Cost	Executed Contracts / CCOs to date	Funds for SAS CCOs	Funds for YBITS-1 CCOs	Comments
A	Furnish Light Poles (BATA Contract)						
ITEM 1A	Furnish Light Poles	\$15,300,000.00	\$4,000,000.00	\$3,000,000.00			The lowering device was eliminated. The fixtures were also eliminated from this contract and added to Item 1B below.
ITEM 2A	Storage Cost	\$1,500,000.00	\$500,000.00				
	Contingency (Included in the above)						
	Total Estimated Cost To Furnish Light Poles (BATA Contract)	\$16,800,000.00	\$4,500,000.00	\$3,000,000.00			
B	MEP Integration Work Installation						
ITEM 1B	Install Light Poles (Skyway and OTD1), F&I LED fixture for corridor poles	\$2,000,000.00	\$13,500,000.00	Pending Approval	\$260,000.00	\$13,240,000.00	Fixtures were eliminated from pole contract and added to this item, also added more fixtures. CCO 902 (YBITS) and 167-S1 (SAS) to cover this item.
ITEM 2B	Installation of MEP items eliminated from Skyway & OTD1	\$8,000,000.00	\$8,000,000.00	\$5,000,000.00	\$5,000,000.00	\$3,000,000.00	
ITEM 3B	Upgrades & Revisions of the already installed components (Skyway & OTD1)	\$2,500,000.00	\$2,500,000.00	Pending Approval	\$1,700,000.00	\$800,000.00	CCO 163 (pig tail conduits) is one of the issues for this item
ITEM 4B	Installation of BASE System (conduits & Cabinets within Skyway & OTD1)	\$2,000,000.00	\$0.00				This work is included in Item D below
ITEM 5B	Contingency	\$2,900,000.00	\$4,800,000.00		\$1,300,000.00	\$4,400,000.00	
	Total Estimated Cost For Installation	\$17,400,000.00	\$28,800,000.00	\$5,000,000.00			
	Total for all Light Poles & MEP Integration Work (within Skyway & OTD1)	\$34,200,000.00	\$33,300,000.00	\$8,000,000.00			Total of \$34.2M for Items A & B was approved by TBPOC 11-
C	System Wide Testing (Entire Corridor)						
ITEM 1C	System wide (Entire Corridor) testing, Relay Setting, SCADA development & commissioning	\$3,000,000.00	\$3,000,000.00				
ITEM 2C	Resolution of system wide testing issues (for entire corridor)	\$1,500,000.00	\$1,500,000.00				
ITEM 3C	Contingency (20%)	\$900,000.00	\$900,000.00				
	Total Estimated Cost Of System wide Testing	\$5,400,000.00	\$5,400,000.00		\$0.00	\$5,400,000.00	\$5.4M (TBPOC Approved May 6, 2010)
D	Complete BASE System (Entire Corridor)						
ITEM 1D	Hardware (about 150 cameras, interface box and decoder for each camera / wiring)	\$3,000,000.00	\$3,000,000.00				
ITEM 2D	Installation cost (Camera & Hardware)	\$1,500,000.00	\$1,500,000.00				
ITEM 3D	New dedicated fiber line in both structures with 2 loops (installed)	\$2,000,000.00	\$2,000,000.00				
ITEM 4D	Contingency (20%)	\$1,300,000.00	\$1,300,000.00				
	Total Estimated Cost for BASE System	\$7,800,000.00	\$7,800,000.00		\$3,900,000.00	\$3,900,000.00	Need to transfer funds from rehab for this work
	Total for all above items (Including BATA Contract)	\$47,400,000.00	\$46,500,000.00		\$12,160,000.00	\$30,740,000.00	

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 28, 2011

FR: Peter Lee, Senior Program Coordinator, BATA

RE: Agenda No. - 3a
Progress Reports
Item- Draft Project Progress and Financial Update, September 2011

Recommendation:
APPROVAL Confirmation

Cost:
N/A

Schedule Impacts:
N/A

Discussion:

Included in this package is a draft Project Progress and Financial Update, September 2011. By meeting time, the final report will have been approved by the PMT through a TBPOC-delegated authority. TBPOC confirmation of this approval is requested.

Attachment(s):

Draft Project Progress and Financial Update, September 2011 (see end of binder)



San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

Project Progress and
Financial Update
September 2011

DRAFT VERSION 5.0



**TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE**

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

Released: October 2011

View from the west to the east overlooking the Yerba Buena Island Transition Structure Contract #1 on the left and Yerba Buena Island Detour on right





Self-Anchored Suspension Bridge Shear-Leg Crane Barge
Hoisting Roadway Box*13 Westbound

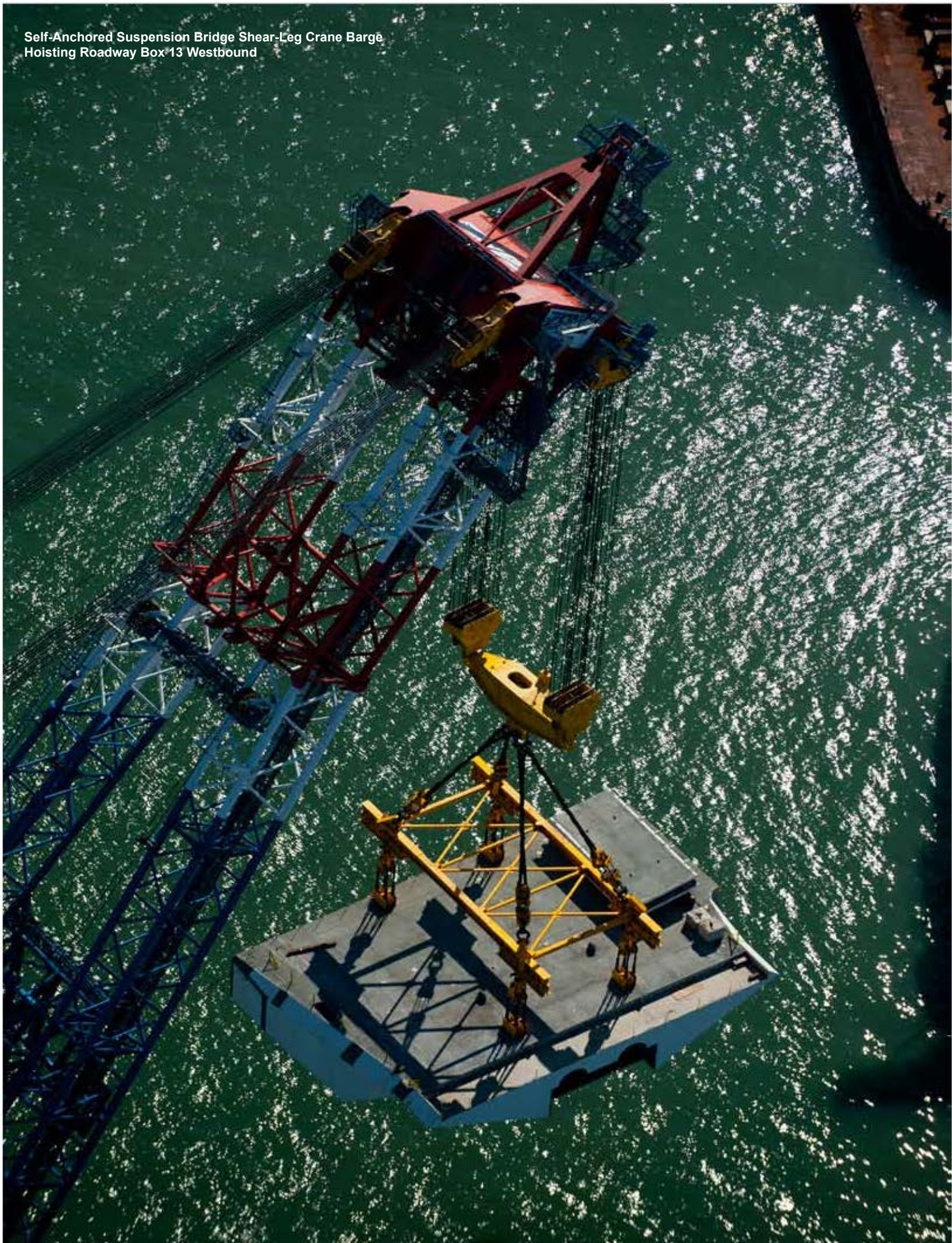
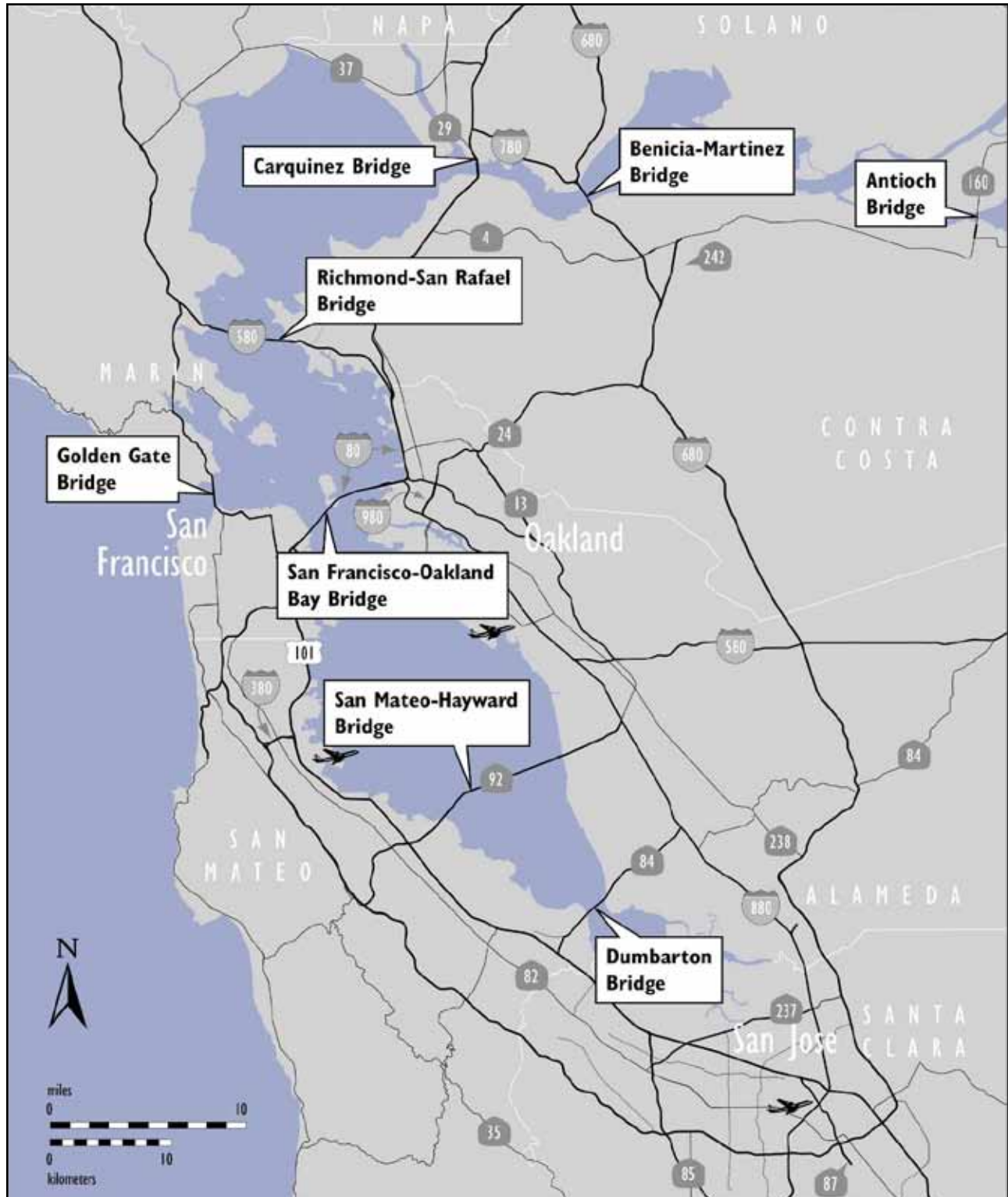


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Map of Bay Area Toll Bridges



* The Golden Gate Bridge is owned and operated by the Golden Gate Bridge, Highway, and Transportation District.

Introduction

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the new Benicia-Martinez Bridge and State Toll Bridge Seismic Retrofit Program projects. The TBPOC consists of the Director of Caltrans, the Executive Director of the Bay Area Toll Authority (BATA) and the Executive Director of the California Transportation Commission (CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the Committee), and keeping the Legislature and others apprised of current project progress and status. In January 2010, Assembly Bill (AB) 1175 (Torlakson) amended the TBSRP to include the Antioch and Dumbarton Bridges seismic retrofit projects. The current Toll Bridge Seismic Retrofit Program is as follows:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
Dumbarton Bridge Seismic Retrofit	Construction
Antioch Bridge Seismic Retrofit	Construction
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Complete
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
1958 Carquinez Bridge Seismic Retrofit	Complete
1962 Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The New Benicia-Martinez Bridge is part of a larger program of toll-funded projects called the Regional Measure 1 (RM1) Toll Bridge Program under the responsibility of BATA and Caltrans. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

Regional Measure 1 Projects	Open to Traffic Status
Interstate 880/State Route 92 Interchange Reconstruction	Construction
1962 Benicia-Martinez Bridge Reconstruction	Open
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

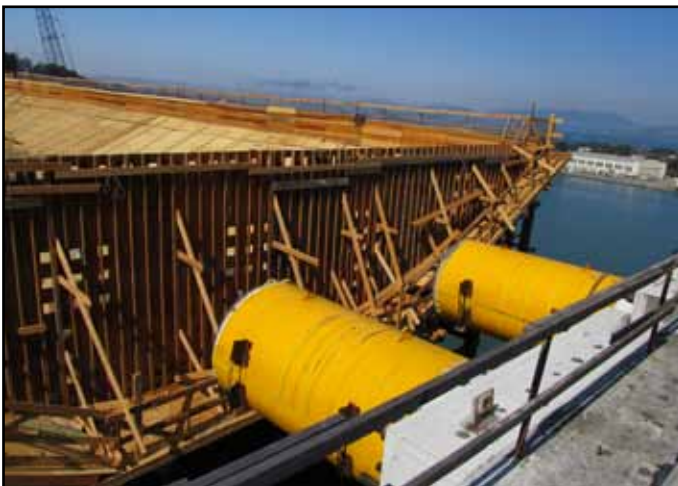
SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Shear-Leg Barge Crane Hoisting Roadway Box 14 Eastbound



Shear-Leg Barge Crane Hoisting the Final Roadway Boxes and Components



Hinge K Interface between SAS and YBITS#1 Westbound

Toll Bridge Seismic Retrofit Program Risk Management

A major element of the 2005 AB144, the law creating the TBPOC, was legislative direction to implement a more aggressive risk management program. Such a program has been implemented in stages over time to ensure development of a robust and comprehensive approach to risk management.

A comprehensive risk assessment is performed for each project in the program on a quarterly basis. Based upon those assessments, a forecast is developed using the average cost of risk. These forecasts can both increase and decrease as risks are identified, resolved or retired. Nonetheless, assurances have been made that the public is informed of the risks that have been identified and the possible expense they could necessitate.

As of the end of the second quarter of 2011, the 50 percent probable draw on program contingency is \$200 million. The potential draw ranges from \$60 million to \$300 million.

The \$308 million program contingency balance can be used to cover the costs of identified risks. In accordance with the approved TBSRP Risk Management Plan, risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Replacement Project SAS Superstructure Contract

The prime contractor constructing the Self-Anchored Suspension (SAS) Bridge from the completed Skyway to Yerba Buena Island is a joint venture of American Bridge/Fluor (ABF). Significant progress is being made both in the Bay Area and around the world.

As of the end of June 2011, workers successfully hoisted the “world’s largest cable saddle” atop the Self-Anchored-Suspension (SAS) span’s tower. The structural elements of the main tower are now complete with the saddle in place. Just shy of its 525-foot apex, the signature tower will be crowned with a decorative head after the cable is installed early next year.

Installation of four catwalks from the roadway to the top of the tower is complete. The first 24 of 28 steel roadway boxes were installed as of the end of June 2011. The remaining four roadway boxes arrived in the Bay Area on August 28, 2011 and will be installed in September 2011.

These boxes, fabricated in Shanghai, China, join other bridge components that have been arriving from around the country and the world. All bridge components undergo a rigorous quality review by the fabricator, ABF, and Caltrans to ensure that only bridge components that have been built in accordance to the specifications will be shipped. The TBPOC's goal is to open the bridge to traffic in both directions by December 2013.

Yerba Buena Island Detour Contract

The YBI temporary detour structure contract was completed in October 2010.

Yerba Buena Island Transition Structures #1 Contract

The YBITS#1 contract has been awarded to MCM Construction, Inc., the same contractor that completed the Oakland Touchdown (OTD) #1 contract. MCM mobilized in September 2010, and has had total access to the area since October 1, 2010. The MCM contract includes completing the remaining foundations and the bridge deck structure from the Yerba Buena Island Tunnel to the Self-Anchored Suspension (SAS) bridge.

Work is focused on the westbound transition structure's substructure and superstructure from the tunnel to the Self-Anchored Suspension bridge as shown in the picture below.



YBITS #1 Westbound Formwork, Rebar and Concrete Progress

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Oakland Detour - Westbound Work in Progress

Oakland Touchdown #1 Contract

The Oakland Touchdown (OTD) #1 contractor, MCM Construction, Inc., completed the work on June 8, 2010. The contract constructed the westbound approach from the toll plaza to the Skyway structure and the portion of the eastbound approach that is not in conflict with the existing bridge structure.

Oakland Detour

The detour realigns the existing bridge approach to the south to allow for construction of the remaining portion of OTD #2 that was in conflict with the existing bridge. The eastbound detour was completed on May 30, 2011. The westbound detour is forecast to open at the beginning of spring 2012.



Oakland Detour

Oakland Touchdown #2 Contract

The OTD #2 contract for construction will be advertised in October 2011 and awarded in April 2012.

Existing SFOBB Dismantling

To expedite opening of a new eastbound on ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract or contracts yet to be determined.

Antioch Bridge Seismic Retrofit

The major retrofit strategy for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents and installing steel casings at all columns located at the Sherman Island approach slab bridge. See project progress on page 38.

Dumbarton Bridge Seismic Retrofit

The Dumbarton bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast - prestressed concrete girders, and steel box



Antioch Bridge



Antioch Bridge - Cross Frames Installed between Bent Columns



Aerial View of the Dumbarton Bridge



92/880 NWCONN On Ramp

girders supported on reinforced concrete piers. The retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings. See project progress on page 40.

TBSRP Capital Outlay Support

The capital outlay support (COS) budget, originally established as a part of AB 144 in 2005, was based on a schedule that assumed bridge opening in 2012. After the SAS contract was rebid, interested contractors requested an additional year to be added to the schedule. To ensure a competitive bidding pool, the TBPOC changed the approved schedule to reflect bridge opening in 2013, but delayed increasing the COS budget to cover the project extension with the belief that an accelerated early completion was still possible and that COS costs could be contained. Since that time, early completion has not materialized and the TBPOC has subsequently approved COS budget increases to be funded from the COS reserves set aside within the original program contingency for project extensions or delays. Opportunities to economize and reduce costs in this area will continue to be pursued. However, additional COS is forecast to be needed from the program contingency.

TBSRP Programmatic Risks

This category includes risks that are not yet scoped within existing contracts and/or that spread across multiple contracts. The interdependencies between all of the contracts in the program result in the potential for one contract's delay to impact the entire program that are accounted for in the net programmatic risks.

Regional Measure 1 Toll Bridge Program (RM1)

Interstate 880/State Route 92 Interchange Reconstruction Project

The project is forecast to be substantially completed in September 2011 pending weather or unforeseen construction delays. Caltrans is scheduled to open the westbound 92 to 880 in September 2011.

Toll Bridge Seismic Retrofit Program Cost Summary

	Contract Status	AB 144/SB 66 Budget (August 2005)	TBPOC Approved Changes	Current TBPOC Approved Budget (August 2011)	Cost to Date (August 2011)	Current Cost Forecast (August 2011)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
SFOBB East Span Seismic Replacement								
Capital Outlay Construction								
Skyway	Completed	1,293.0	(38.9)	1,254.1	1,237.1	1,245.2	(8.9)	●
SAS Marine Foundations	Completed	313.5	(32.6)	280.9	274.8	278.6	(2.3)	●
SAS Superstructure	Construction	1,753.7	293.1	2,046.8	1,564.9	2,078.9	32.1	●
YBI Detour	Completed	131.9	360.9	492.8	465.9	482.8	(10.0)	●
YBI Transition Structures (YBITS)		299.3	(51.5)	247.8	55.4	305.1	57.3	●
YBITS 1	Construction			185.5	55.4	222.4	36.9	●
YBITS 2	Design			59.0	-	79.4	20.4	●
YBITS Landscaping	Design			3.3	-	3.3	-	●
Oakland Touchdown (OTD)		283.8	55.2	339.0	209.4	333.9	(5.1)	●
OTD 1	Completed			212.0	202.9	203.3	(8.7)	●
OTD 2	Design			62.0	-	58.6	(3.4)	●
Detour	Construction			51.0	-	58.0	7.0	●
OTD Electrical Systems	Design			4.4	-	4.4	-	●
Submerged Electric Cable	Completed			9.6	6.5	9.6	-	●
Existing Bridge Demolition	Design	239.2	(0.1)	239.1	-	250.8	11.7	●
Stormwater Treatment Measures	Completed	15.0	3.3	18.3	16.8	18.3	-	●
Other Completed Contracts	Completed	90.4	-	90.4	89.9	90.4	-	●
Capital Outlay Support		959.3	218.0	1,177.3	988.7	1,275.8	98.5	●
Right-of-Way and Environmental Mitigation		72.4	-	72.4	51.7	80.4	8.0	●
Other Budgeted Capital		35.1	(3.3)	31.8	0.7	7.7	(24.1)	●
Total SFOBB East Span Replacement		5,486.6	804.1	6,290.7	4,955.3	6,447.9	157.2	
Antioch Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Construction		70.0	70.0	33.2	56.9	(13.1)	●
Capital Outlay Support			31.0	31.0	20.4	34.7	3.7	●
Total Antioch Bridge Seismic Retrofit		-	101.0	101.0	53.6	91.6	(9.4)	
Dumbarton Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Construction		92.7	92.7	16.1	88.8	(3.9)	●
Capital Outlay Support			56.0	56.0	28.3	57.2	1.2	●
Total Dumbarton Bridge Seismic Retrofit		-	148.7	148.7	44.4	146.0	(2.7)	
Other Program Projects		2,268.4	(64.6)	2,203.8	2,161.5	2,191.7	(12.1)	●
Miscellaneous Program Costs		30.0	-	30.0	25.5	30.0	-	●
Net Programmatic Risks		-	-	-	-	66.9	66.9	●
Program Contingency		900.0	(592.2)	307.8	-	107.9	(199.9)	●
Total Toll Bridge Seismic Retrofit Program²		8,685.0	397.0	9,082.0	7,240.3	9,082.0	-	

- Within approved schedule and budget
 - Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
 - Known project impacts with forthcoming changes to approved schedules and budgets
- ² Figures may not sum up to totals due to rounding effects.

Toll Bridge Seismic Retrofit Program Schedule Summary

	AB144/SB 66 Project Completion Schedule Baseline (July 2005)	TBPOC Approved Changes (Months)	Current TBPOC Approved Completion Schedule (August 2011)	Current Completion Forecast (August 2011)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i = g + h	j	k = j - i	l	
SFOBB East Span Seismic Replacement							
Contract Completion							
Skyway	Apr 2007	8	Dec 2007	Dec 2007	-	●	See Page 32
SAS Marine Foundations	Jun 2008	(5)	Jan 2008	Jan 2008	-	●	See Page 18
SAS Superstructure	Mar 2012	29	Aug 2014	Aug 2014	-	●	See Page 19
YBI Detour	Jul 2007	41	Dec 2010	Oct 2010	(2)	●	See Page 15
YBI Transition Structures (YBITS)	Nov 2013	12	Nov 2014	Mar 2015	4		See Page 16
YBITS 1			Sep 2013	Dec 2013	3	●	
YBITS 2			Nov 2014	Mar 2015	4	●	
YBITS Landscaping			TBD	TBD	-	●	
Oakland Touchdown	Nov 2013	12	Nov 2014	Nov 2014	-		See Page 33
OTD 1			Jun 2010	Jun 2010	-	●	
OTD 2			Nov 2014	Nov 2014	-	●	
OTD Electrical Systems			TBD	TBD	-	●	
Submerged Electric Cable			Jan 2008	Jan 2008	-	●	
Existing Bridge Demolition	Sep 2014	12	Sep 2015	Dec 2015	3	●	
Stormwater Treatment Measures	Mar 2008		Mar 2008	Mar 2008	-	●	
SFOBB East Span Bridge Opening and Other Milestones							
Westbound Seismic Safety Open	Sep 2011	27	Dec 2013	Dec 2013	-	●	
Eastbound Seismic Safety Open	Sep 2012	15	Dec 2013	Dec 2013	-		
Oakland Detour Eastbound Open			May 2011	May 2011	-	●	
Oakland Detour Westbound Open			Feb 2012	Feb 2012	-	●	
OTD Westbound Access			Aug 2009	Aug 2009	-	●	
YBI Detour Open			Sep 2009	Sep 2009	-	●	See Page 15
Antioch Bridge Seismic Retrofit							
Contract Completion			Aug 2012	May 2012	(3)	●	See Page 36
Dumbarton Bridge Seismic Retrofit							
Contract Completion			Sep 2013	Sep 2013	-	●	See Page 38

Regional Measure 1 Program Cost Summary

	Contract Status	BATA Baseline Budget (July 2005)	BATA Approved Changes	Current BATA Approved Budget (August 2011)	Cost to Date (August 2011)	Current Cost Forecast (August 2011)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
Interstate 880/Route 92 Interchange Reconstruction								
Capital Outlay Construction	Construction	94.8	68.4	163.2	140.8	163.2	-	●
Capital Outlay Support		28.8	35.8	64.6	60.4	64.6	-	●
Capital Outlay Right-of-Way		9.9	7.3	17.2	14.6	17.2	-	●
Project Reserve		0.3	(0.3)	-	-	-	-	
Total I-880/SR-92 Interchange Reconstruction		133.8	111.2	245.0	215.8	245.0	-	
Other Completed Program Projects		1,978.8	182.6	2,161.4	2,088.5	2,161.4	-	
Total Regional Measure 1 Toll Bridge Program¹		2,112.6	293.8	2,406.4	2,304.3	2,406.4	-	

- Within approved schedule and budget
 - Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
 - Known project impacts with forthcoming changes to approved schedules and budgets
- ¹ Figures may not sum up to totals due to rounding effects.

Regional Measure 1 Program Schedule Summary

	BATA Baseline Completion Schedule (August 2005)	BATA Approved Changes (Months)	Current BATA Approved Completion Schedule (August 2011)	Current Completion Forecast (August 2011)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i = g + h	j	k = j - i	l	
Interstate 880/Route 92 Interchange Reconstruction							
Contract Completion							
Interchange Reconstruction	Dec 2010	9	Sep 2011	Sep 2011	-	●	See Page 44



Aerial View of the Existing East and West Spans of the San Francisco-Oakland Bay Bridge and Yerba Buena Island with the New Self-Anchored Suspension Bridge's Tower and Catwalks Illuminated



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge Seismic Retrofit Strategy

When a 250-ton section of the upper deck of the East Span collapsed during the 7.1-magnitude Loma Prieta Earthquake in 1989, it was a wake-up call for the entire Bay Area. While the East Span quickly reopened within a month, a critical question lingered: How could the Bay Bridge—a vital regional lifeline structure—be strengthened to withstand the next major earthquake? Seismic experts from around the world determined that to make each separate element seismically safe on a bridge of this size, the work must be divided into numerous projects. Each project presents unique challenges. Yet there is one common challenge — the need to accommodate the more than 280,000 vehicles that cross the bridge each day.



West Approach Overview

West Approach Seismic Replacement Project

Project Status: Completed 2009

Seismic safety retrofit work on the West Approach in San Francisco, bounded on the west by 5th Street and on the east by the anchorage of the west span at Beale Street, involved completely removing and replacing this one-mile stretch of Interstate 80, as well as six on- and off-ramps within the confines of the West Approach's original footprint. This project was completed on April 8, 2009.

West Span Seismic Retrofit Project

Project Status: Completed 2004

The West Span lies between Yerba Buena Island and San Francisco and is made up of two complete suspension spans connected at a center anchorage. Retrofit work included adding massive amounts of steel and concrete to strengthen the entire West Span, along with new seismic shock absorbers and bracing.



San Francisco-Oakland Bay Bridge West Span



East Span Seismic Replacement Project

Project Status: **In Construction**

Rather than a seismic retrofit, the two-mile long East Span is being completely rebuilt. When completed, the new East Span will consist of several different sections, but will appear as a single streamlined span. The eastbound and westbound lanes of the East Span will no longer include upper and lower decks. The lanes will instead be parallel, providing motorists with expansive views of the bay. These views will also be enjoyed by bicyclists and pedestrians, thanks to a new bike path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span will be aligned north of the existing bridge to allow traffic to continue to flow on the existing bridge as crews build the new span.

The new span will feature the world's longest Self-Anchored Suspension (SAS) bridge that will be connected to an elegant roadway supported by piers (Skyway), which will gradually slope down toward the Oakland shoreline (Oakland Touchdown). A new transition structure on Yerba Buena Island (YBI) will connect the SAS to the YBI Tunnel and will transition the East Span's side-by-side traffic to the upper and lower decks of the tunnel and West Span.

When construction of the new East Span has been completed and vehicles have been safely rerouted to it, the original East Span will be demolished.



Architectural Rendering of the New East Span of the San Francisco-Oakland Bay Bridge



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Summary

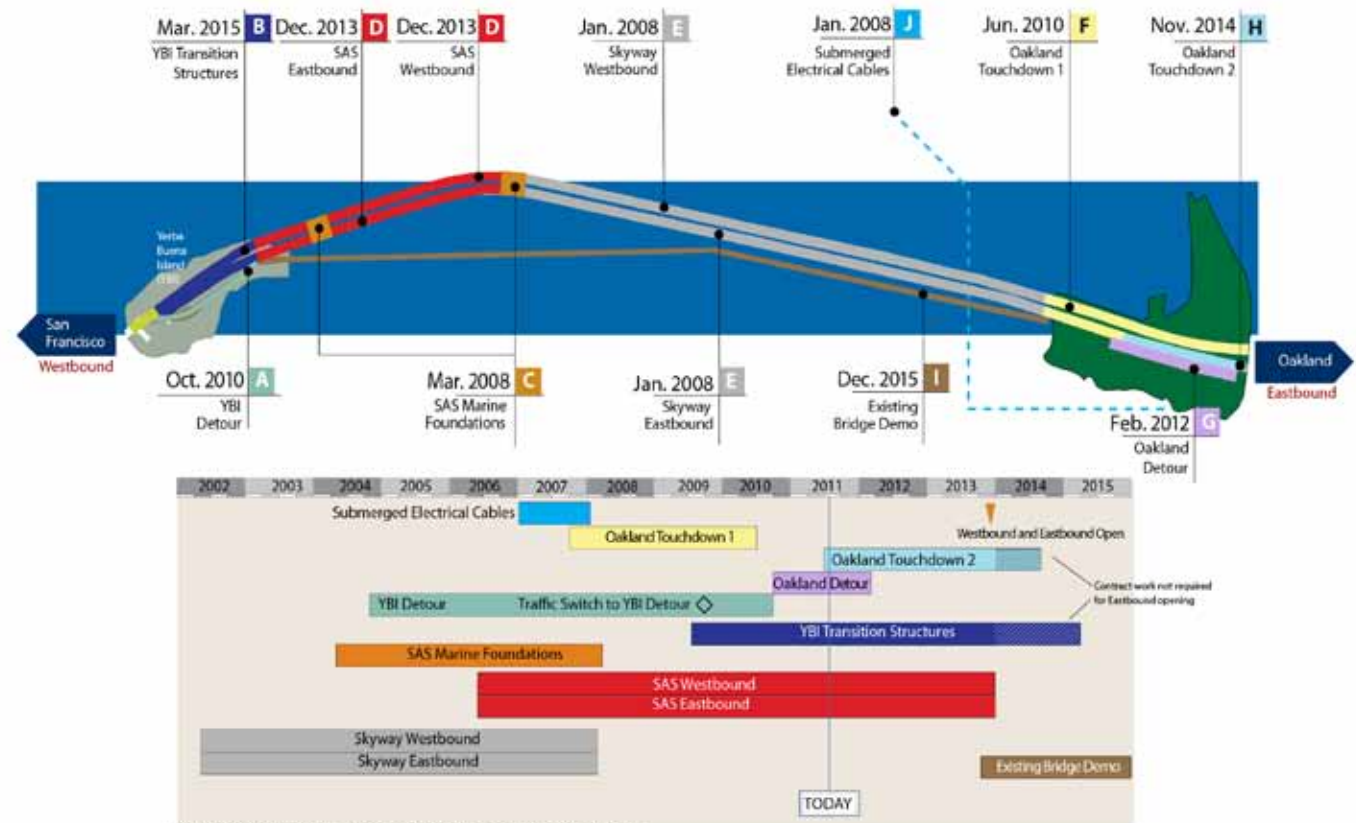
The new East Span bridge can be split into four major components—the Skyway and the Self-Anchored Suspension bridge in the middle and the Yerba Buena Island Transition Structures and Oakland Touchdown approaches at either end. Each component is being constructed by one to three separate contracts that have been sequenced together to reduce schedule risk.

Highlighted below are the major East Span contracts and their schedules. The letter designation before each contract corresponds to contract descriptions in the report.



Overview of the San Francisco-Oakland Bay Bridge East Span Construction Progress

SFOBB East Span Work Sequence



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Detour (YBID)

As with all of the Bay Bridge's seismic retrofit projects, crews must build the Yerba Buena Island Transition Structures (YBITS) without disrupting traffic. To accomplish this task, YBID eastbound and westbound traffic was shifted off the existing roadway and onto a temporary detour on Labor Day weekend 2009. Drivers will use this detour, just south of the original roadway, until traffic is moved onto the new East Span.

A YBID Contract

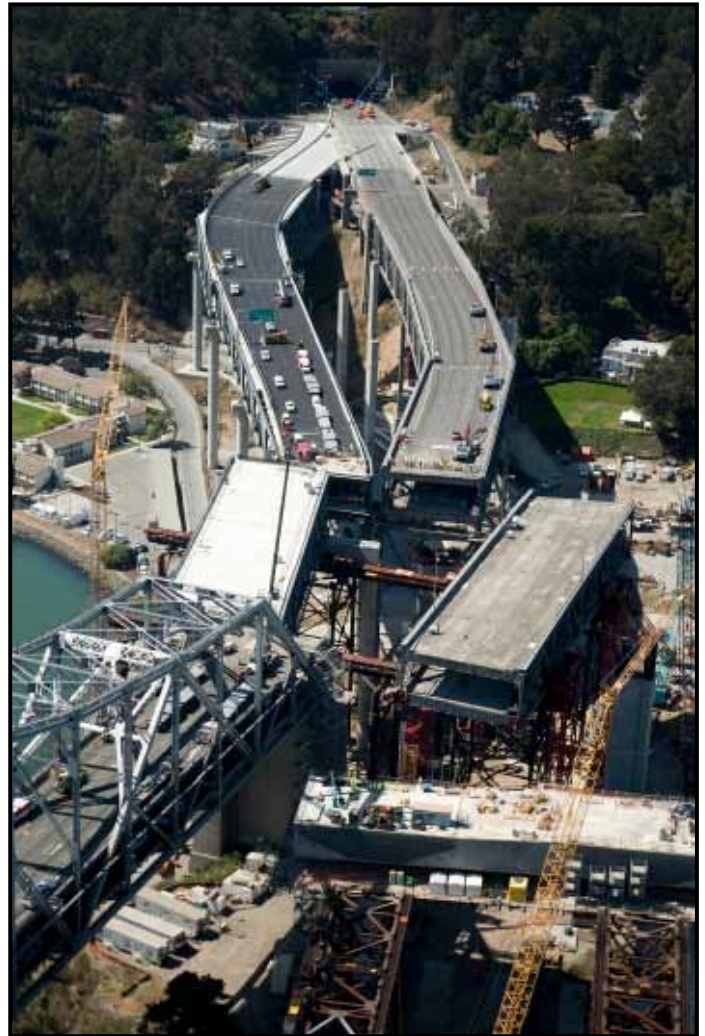
Contractor: C.C. Myers, Inc.

Approved Capital Outlay Budget: \$492.8 M

Status: Completed October 2010

This contract was originally awarded in early 2004 to construct the detour structure for the planned 2006 opening of the new East Span. Due to the re-advertisement of the SAS Superstructure contract in 2005 because of a lack of funding at the time, the bridge opening was rescheduled to 2013. To better integrate the contract into the current East Span schedule and to improve seismic safety and mitigate future construction risks, the TBPOC has approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over Labor Day weekend 2007, advancing future transition structure foundation work and making design enhancements to the temporary detour structure. These changes have increased the budget and forecast for the contract to cover the revised project scope and reduce project risks.

Status: Completed.



YBID East Tie-In Rolled in on Labor Day 2009 Weekend



West Tie-In Phase #1 Rolled in on Labor Day Weekend 2007

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Transition Structures (YBITS)

The new Yerba Buena Island Transition Structures (YBITS) will connect the new SAS bridge span to the existing Yerba Buena Island Tunnel, transitioning the new side-by-side roadway decks to the upper and lower decks of the tunnel. The new structures will be cast-in-place reinforced concrete structures that will look very similar to the already constructed Skyway structures. While some YBITS foundations and columns have been advanced by the YBID contract, the remaining work will be completed under three separate YBITS contracts.

B YBITS #1 Contract

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: **\$185.5 M**

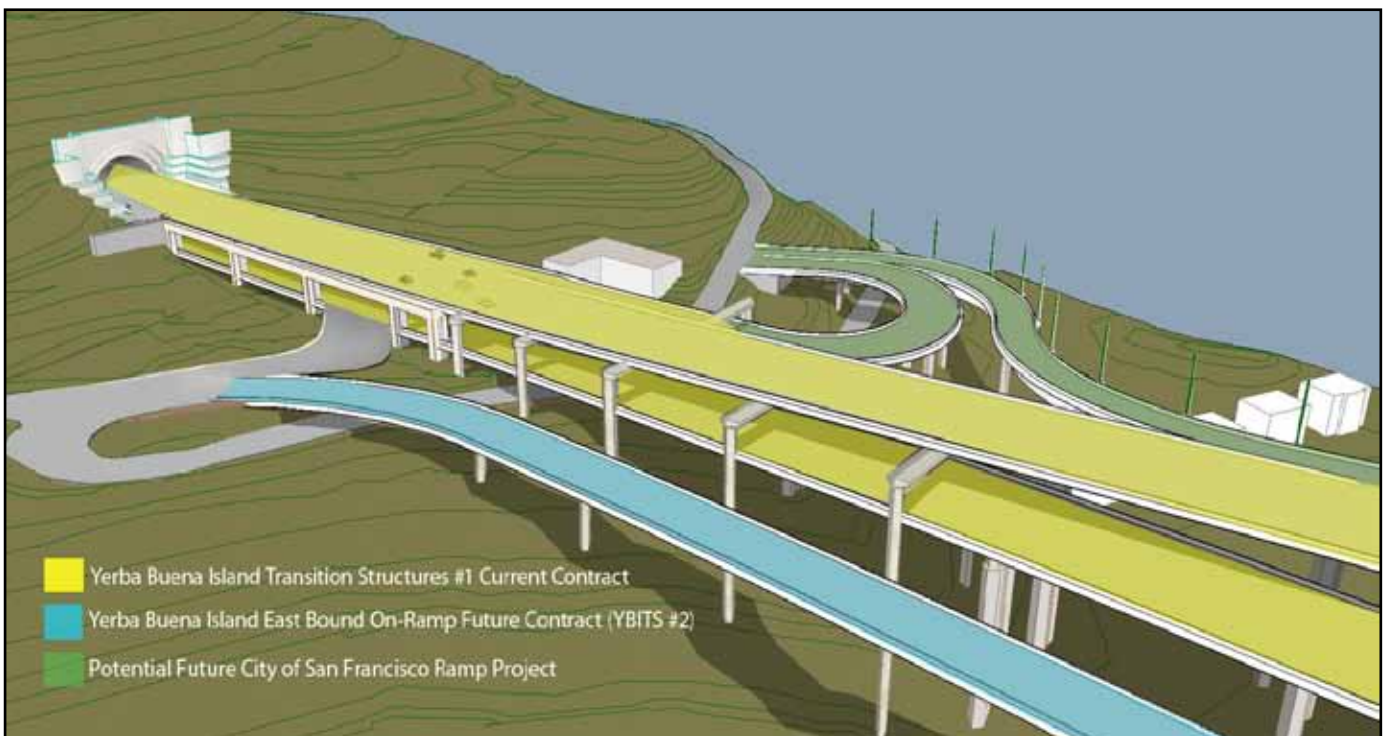
Status: **30% Complete as of August 2011**



Overview of the Yerba Buena Island Westbound Transition Structure on left and Yerba Buena Island Temporary Detour on right

The YBITS #1 contract will construct the mainline roadway structure from the SAS bridge to the YBI tunnel. On February 4, 2010, Caltrans awarded the YBITS #1 Contract to MCM Construction, Inc.

Status: Construction of the eastbound and westbound footings and columns is complete. Work continues on frames 1 and 2 westbound formwork, rebar installation and concrete placement for the stem walls and soffit.



YBITS #2 Contract

Contractor: TBD

Approved Capital Outlay Budget: \$59.0 M

Status: **In Design**

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The new ramp will also provide the final link for bicycle/pedestrian access off the SAS bridge onto Yerba Buena Island. To expedite opening of a new eastbound on-ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract or contracts yet to be determined.

YBITS Landscaping Contract

Contractor: TBD

Approved Capital Outlay Budget \$3.3M

Status: **In Design**

Upon completion of the YBITS work, a follow-on landscaping contract will be executed to replant and landscape the area.

Yerba Buena Island Transition Structures Advanced Work

Due to the re-advertisement of the SAS superstructure contract in 2005, it became necessary to temporarily suspend the detour contract and make design changes to the viaduct. To make more effective use of the extended contract duration and to reduce overall project schedule and construction risks, the TBPOC approved the advancement of foundation and column work from the YBITS contract.

Status: The YBID contractor completed the YBITS advanced substructure work in October 2010.



Yerba Buena Island Transition Structures #1 Advanced Columns in the middle with Westbound Concrete Operations in Progress on the left and Yerba Buena Island Temporary Detour Structure on the right

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Self-Anchored Suspension (SAS) Bridge

If one single element bestows world class status on the new Bay Bridge East Span, it is the Self-Anchored Suspension (SAS) bridge. This engineering marvel will be the world's largest SAS span at 2,047 feet in length, as well as the first bridge of its kind built with a single tower.

The SAS was separated into three separate contracts— construction of the land-based foundations and columns at pier W2; construction of the marine-based foundations and columns at piers T1 and E2; and construction of the SAS steel superstructure, including the tower, roadway, and cabling. Construction of the foundations at pier W2 and at piers T1 and E2 was completed in 2004 and 2007, respectively.



Aerial View of the Self-Anchored Suspension Bridge, the Tower and Catwalks Installed

SAS Land Foundation Contract

Contractor: West Bay Builders, Inc.
Approved Capital Outlay Budget: \$26.4 M
Status: Completed October 2004

The twin W2 columns on Yerba Buena Island provide essential support for the western end of the SAS bridge, where the single main cable for the suspension span will extend down from the tower and wrap around and under the western end of the roadway deck. Each of these huge columns required massive amounts of concrete and steel and are anchored 80 feet into the island's solid bedrock.

C SAS Marine Foundations Contract

Contractor: Kiewit/FCI/Manson, Joint Venture
Approved Capital Outlay Budget: \$280.9 M
Status: Completed January 2008

Construction of the piers at E2 and T1 (see rendering on facing page) required significant on-water resources to drive the foundation support piles down, not only to bedrock, but also through the bay water and mud.

The T1 foundation piles extend 196 feet below the waterline and are anchored into bedrock with heavily reinforced concrete rock sockets that are drilled into the rock. Driven nearly 340 feet deep, the steel and concrete E2 foundation piles were driven 100 feet deeper than the deepest timber piles of the existing east span in order to get through the bay mud and reach solid bedrock.



D SAS Superstructure Contract

Contractor: American Bridge/Fluor Enterprises, Joint Venture

Approved Capital Outlay Budget: \$2.05 B

Status: 75% Complete as of August 2011

The SAS bridge is not just another suspension bridge. Rising 525 feet above mean sea level and embedded in rock, the single-tower SAS span is designed to withstand a massive earthquake. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. While there will appear to be two main cables on the SAS, there will actually only be a single continuous cable. This single cable will be anchored within the eastern end of the roadway, carried over the tower and then wrapped around the two side-by-side decks at the western end.

The single-steel tower is made up of four separate legs connected by shear link beams which function much like a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs.

The next several pages highlight the construction sequence of the SAS and are followed by detailed updates on specific construction activities.



Architectural Rendering of New Self-Anchored Suspension Span and Skyway

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Construction Sequence

STEP 1 - CONSTRUCT TEMPORARY SUPPORT STRUCTURES

Temporary support structures will need to be erected from the Skyway to Yerba Buena Island to support the new SAS bridge during construction.

Status: Foundations and temporary support structures were completed in mid-September 2010.



Step 1

STEP 2 - INSTALL ROADWAYS

The roadway boxes are being lifted into place by using the shear-leg crane barge. The boxes are being bolted and welded together atop the temporary support trusses to form two continuous parallel steel roadway boxes.

Status: Twenty-four of 28 roadway boxes have been erected. Seventeen crossbeams have been installed between the roadway boxes. Roadway boxes 13 and 14 arrived at Pier 7 in Oakland on August 28, 2011. Installation of the bike path decks, service platforms, barriers, and traveler rails continues on the eastbound and westbound roadway decks.



Step 2

STEP 3 - INSTALL TOWER

Each of the four legs of the tower will be erected in four separate lifts. The four tower lifts, the grillage and the tower head will be installed using a temporary erection tower and lifting jacks.

Status: The tower legs, grillage and saddle have been installed. The tower head is on site and will be erected after the cables have been installed in early 2012. Tower pull-back strands are being anchored to the top of the tower deck and tower pull back is planned for early September 2011.



Step 3



STEP 4 - MAIN CABLE AND SUSPENDER INSTALLATION

The main cable will be pulled from the east end of the SAS bridge, over the tower, and wrapped around pier W2 before returning back over the tower to the east end of the SAS bridge deck. Suspenders cables will be added to lift the roadway decks off the temporary support structure.

Status: Cable installation is pending the erection of the cable temporary works and completion of roadway spans. All cables have been fabricated and stored in the warehouse at Pier 7 in Oakland. The catwalks have been installed on the SAS tower to provide safe access for workers who are installing the hauling and tramway systems that will pull the main cable for installation.



Step 4

STEP 5 - WESTBOUND AND EASTBOUND SEISMIC SAFETY OPENING

The new bridge will now open simultaneously in both the westbound and eastbound directions.

Status: The westbound and eastbound opening is forecast for December 2013.



Step 5



Aerial View of Current Progress on the Self-Anchored Suspension Bridge

Self-Anchored Suspension (SAS) Superstructure Fabrication Activities

Roadway and Tower Segments

Like giant three-dimensional jigsaw puzzles, the roadway and tower lifts of the SAS bridge are hollow steel shells that are internally strengthened and stiffened by a highly engineered network of welded steel ribs and diaphragms. The use of steel in this manner allows for a strong and yet relatively light and flexible structure to withstand the massive loads placed on the bridge during seismic events.

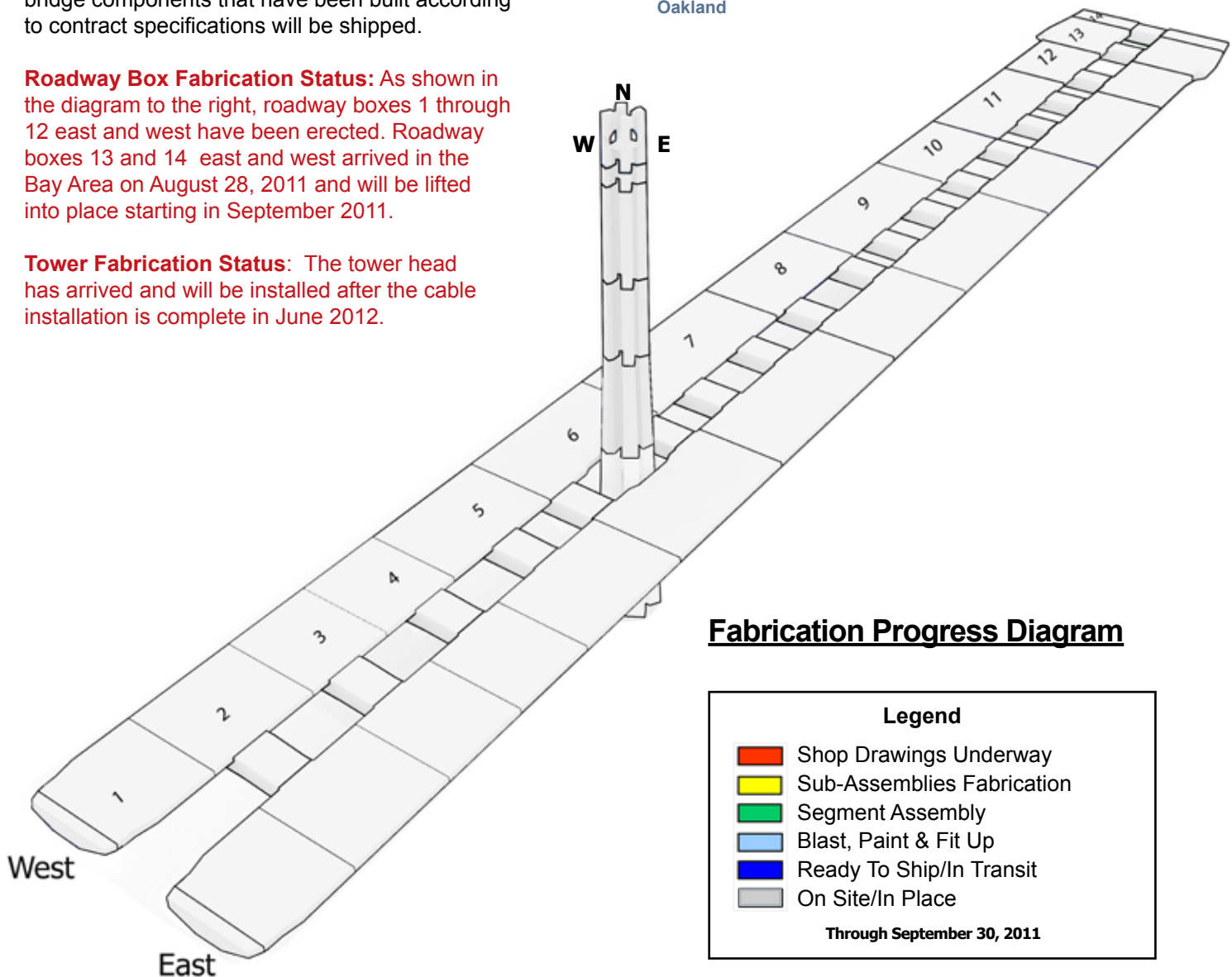
All components undergo a rigorous quality review by ZPMC, ABF, and Caltrans to ensure that only bridge components that have been built according to contract specifications will be shipped.



Off Loading the Final Four Roadway Boxes at Pier 7 in Oakland

Roadway Box Fabrication Status: As shown in the diagram to the right, roadway boxes 1 through 12 east and west have been erected. Roadway boxes 13 and 14 east and west arrived in the Bay Area on August 28, 2011 and will be lifted into place starting in September 2011.

Tower Fabrication Status: The tower head has arrived and will be installed after the cable installation is complete in June 2012.





The Shear-Leg Barge Crane Off Loading Roadway Box 13 Westbound in Oakland

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Fabrication Activities (cont.)

Cables and Suspenders

One continuous main cable will be used to support the roadway deck of the SAS bridge. The main cable will be anchored within the westbound roadway box at the east end of the SAS near pier E2, then extend west over the northeast saddle towards the tower saddle at T1. It will then loop around pier W2 westbound deviation saddle, extend through the jacking beam saddle and extend around the eastbound deviation saddle at W2 over the tower saddle at T1 again to the south east saddle and finally anchor within the eastbound roadway box near pier E2. The main cable is made up of 137 bundles of wire strands and a number of smaller suspender ropes will connect the roadway decks to the main cable.

Status: All main cable strands have been fabricated and delivered to the job site and stored at Pier 7 in Oakland. The cable bands are in fabrication and forecast to be completed in fall of 2011. The suspender ropes are in fabrication and forecast to be completed in October 2011.

Saddles, Bearings, Hinges, and Other Bridge Components

The mounts on which the main cable and suspender ropes will sit are solid steel castings. Castings for the main cable saddles were made by Japan Steel Works, while the cable bands and brackets are being made by Goodwin Steel in the United Kingdom.

The bridge bearings and hinges that support, connect, and transfer loads from the Self-Anchored Suspension (SAS) Span to the adjoining sections of the new east span are being fabricated in a number of locations. Work on the bearings is being performed in Pennsylvania, USA and Hochang, South Korea, while hinge pipe beams are being fabricated in Oregon, USA.

Status: The Hinge K pipe beams have been fabricated and installed. Hinge A seismic expansion joints are in fabrication and are currently scheduled for completion in December 2011. The SAS traveler rails and the Skyway bike path railings and crushable zone are in fabrication and are forecast for completion in September 2011. The anchor rods are also in fabrication and are forecast for completion in August 2011.



Cable Bands Ready for Painting



Sample of Cable Band Compaction Testing Performed at Pier 7 in Oakland

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Field Activities



Shear-Leg Crane Barge in Process of Hoisting Final Components of the Self-Anchored Suspension Bridge



Roadway Boxes' Temporary Support Structures with E2 Cap Beam and Completed Skyway in background



Pier W2 westbound Structure and Hinge K and West Deviation Saddle on right and YBITS #1 on left

Shear-Leg Crane Barge

The massive shear-leg barge crane that is helping to build the SAS superstructure arrived in the San Francisco Bay on March 12, 2009 after a trans-Pacific voyage.

The crane and barge are separate units operating as a single entity named the "Left Coast Lifter." The 400-by-100-foot barge is a U.S.-flagged vessel that was custom built in Portland, Oregon by U.S. Barge, LLC and outfitted with the crane by Shanghai Zhenhua Heavy Industry Co. Ltd. (ZPMC) at a facility near Shanghai, China. The crane's boom weighs 992 tons and is 328 feet long. The crane can lift up to 1,873 tons, including the deck and tower boxes for the SAS.

Status: The shear-leg crane barge arrived at the job site March 2009. The crane has off-loaded and placed all temporary support structures and SAS roadway boxes and crossbeams.

Temporary Support Structures

To erect the roadway decks and tower of the bridge, temporary support structures were first put in place. Almost a bridge in itself, the temporary support structures stretch from the end of the completed Skyway back to Yerba Buena Island. For the tower, a strand jack system is being built into the tower's temporary frame to elevate the upper sections of the tower into place. These temporary supports are being fabricated in the Bay Area, as well as in Oregon and in China at ZPMC.

Status: The temporary support structures were completed in mid-September 2010.

Cap Beams

Construction of the massive steel-reinforced concrete cap beams that link the columns at piers W2 and E2 are the responsibility of the SAS superstructure contractor and represents the only concrete portions of work on that contract. The east and west ends of the SAS roadway will rest on the cap beams and the main cable will wrap around pier W2, while anchoring into the east end of the SAS deck sections near E2.

Status: Completed in March 2009

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Roadway and Tower Box Installation Activities

Upon arrival in Oakland, the steel roadway and tower sections are off-loaded directly from the transport ship onto barges to await installation atop the temporary support structures. Steel roadway boxes will be installed from west to east. Due to the shallow waters near Yerba Buena Island, the eastbound lanes on the south side of the new bridge will be installed first, then to be followed by the westbound lanes. In total, there are 28 roadway boxes (14 in each direction) that range from 560 to 1660 tons and from 80 to 230 feet long.

The tower comprises four legs, each made up of four tower lifts that make up the majority of the height of the tower, the tower grillage, and finally the tower head.

Status: Twenty-four of 28 roadway boxes have been erected to form a continuous roadway. Painting, welding and bolting continues on all roadway boxes. All four tower legs along with the tower grillage and the tower saddle have been installed as of mid-May 2011. Roadway boxes 12 eastbound and westbound were lifted into place at the end of June 2011. **Roadway Boxes 13 and 14 eastbound and westbound and crossbeams 18 and 19 will be installed in September and October 2011.**





Aerial View of the Self-Anchored Suspension Bridge Construction Operations





The Shear-Leg Barge Crane Off Loading Final Roadway Boxes in Oakland

Self-Anchored Suspension Bridge with Newly Installed Catwalks for Access to Cable Installation

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Cable Installation Activities

With installation of all structural elements of the tower and roadway nearing completion, focus is now turning to the placement of the bridge's more than 2 1/2 - foot in diameter and nearly mile long main cable. The single cable is made up of 137 separate bundled strands which contain 127 individual pencil thin wires (see middle photo on this page). Each of the 137 bundled strands will be individually pulled by a tramway system from the northeastern end of the bridge, up and over the tower, and around the west end of the bridge before returning over the tower and to the southeastern end of the bridge.

Status: Workers installed the orange-colored 12-foot-wide catwalks from the roadway to the top of the tower in August 2011. The catwalks provide workers with safe access during the installation of the hauling system, tramway system and main cable strands.

Because the bridge is asymmetric with a longer span to the east than to the west, the tower will be pulled back 20 inches to the west so that the tower will return to a plumb position when the weight of the heavier east side of the bridge is transferred to the main cable. Workers plan to pull back the tower in September 2011.

To pull the strands up and around the bridge, a tramway system, similar to a ski lift, will be used to support, pull and place the main cable during installation. Installation of this system has begun and will be ongoing throughout rest of the year. Cable strand installation is scheduled to start in January 2012.



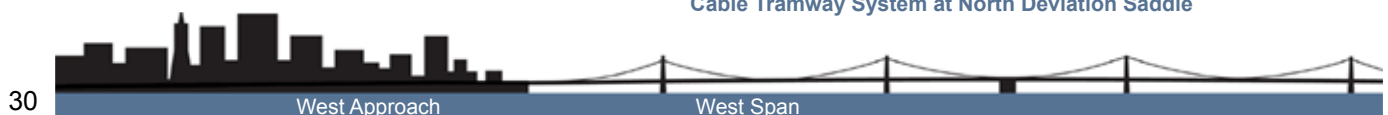
Aerial View of the Self-Anchored Suspension Bridge with the Newly Installed Catwalks



Catwalk Installation for Cable Works at the Self-Anchored Suspension Bridge Tower

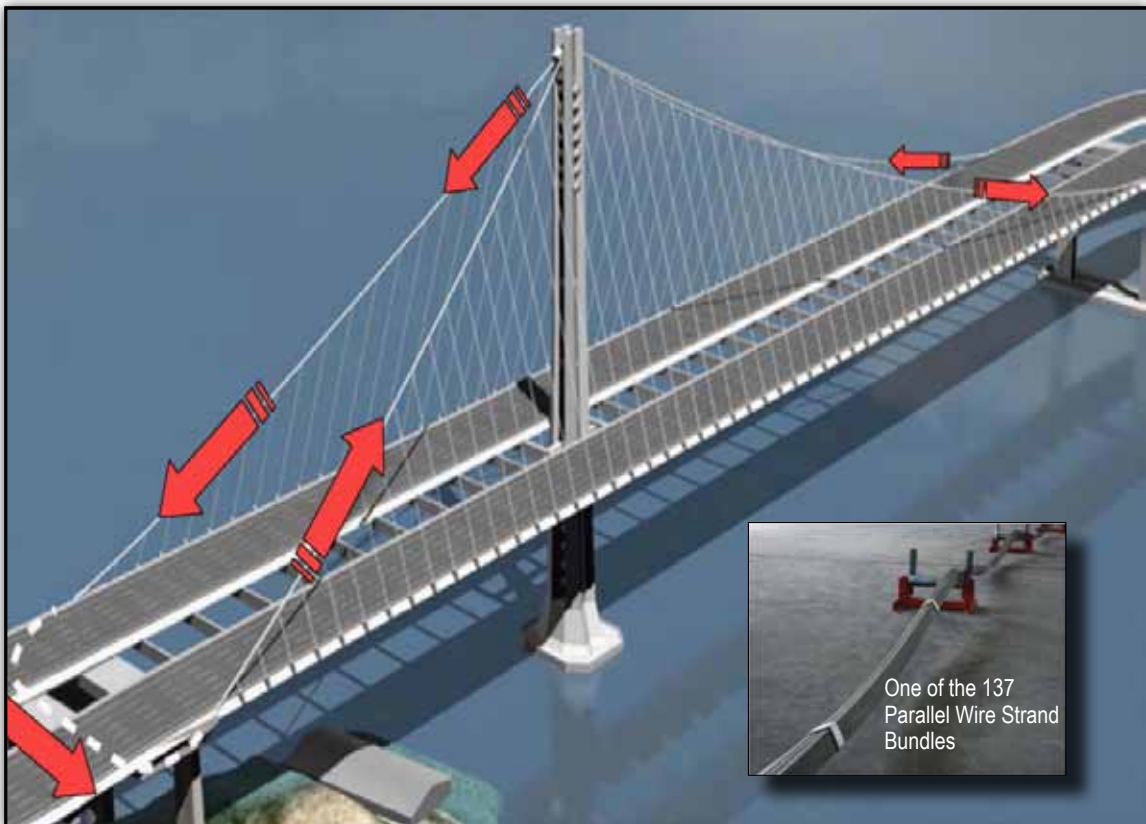


Cable Tramway System at North Deviation Saddle





Cable Tramway and Roller System at top of Tower Saddle



Rendering of the Cable Pull Direction

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Skyway

The Skyway, which comprises much of the new East Span, will drastically change the appearance of the Bay Bridge. Replacing the gray steel that currently cages drivers, a graceful, elevated roadway supported by piers will provide sweeping views of the bay.

E Skyway Contract

Contractor: Kiewit/FCI/Manson, Joint Venture

Approved Capital Outlay Budget: \$1.25 B

Status: Completed March 2008

Extending for more than a mile across Oakland mudflats, the Skyway is the longest section of the East Span. It sits between the new Self-Anchored Suspension (SAS) span and the Oakland Touchdown. In addition to incorporating the latest seismic-safety technology, the side-by-side roadway decks of the Skyway feature shoulders and lane widths built to modern standards.

The Skyway's decks are composed of 452 pre-cast concrete segments (standing three stories high), containing approximately 200 million pounds of structural steel, 120 million pounds of reinforcing steel, 200 thousand linear feet of piling and about 450 thousand cubic yards of concrete. These are the largest segments of their kind ever cast and were lifted into place by custom-made winches.

The Skyway marine foundation consists of 160 hollow steel pipe piles measuring eight feet in diameter and dispersed among 14 sets of piers. The 365-ton piles were driven more than 300 feet into the deep bay mud. The new East Span piles were battered or driven in at an angle, rather than vertically, to obtain maximum strength and resistance.

Designed specifically to move during a major earthquake, the Skyway features several state-of-the-art seismic safety innovations, including 60-foot-long hinge pipe beams. These beams will allow deck segments on the Skyway to move, enabling the deck to withstand greater motion and to absorb more earthquake energy.



Skyway on the left and Existing Bridge on the Right Looking East toward Oakland



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Oakland Touchdown

When completed, the Oakland Touchdown (OTD) structures will connect Interstate 80 in Oakland to the new side-by-side decks of the new East Span. For westbound drivers, the OTD will be their introduction to the graceful new East Span. For eastbound drivers from San Francisco, this section of the bridge will carry them from the Skyway to the East Bay, offering unobstructed views of the Oakland hills.

The Oakland Touchdown (OTD) approach structures to the Skyway will be constructed in three phases. The first phase, constructed on the OTD #1 contract, built the new westbound approach structure. Due to physical constraints with the existing bridge, OTD #1 was only able to construct a portion of the eastbound approach. To facilitate opening the bridge in both directions at the same time, the current phase of work, performed by the Oakland Detour contractor, is widening the upper deck of the Oakland end of the existing bridge to allow for a traffic shift to the north that removes the physical constraint to completing the eastbound structure. The third phase, to be constructed by a future OTD #2 contract, will complete the eastbound lanes and provide the traffic switch to the new structure in both directions. This will allow the bridge to open simultaneously in both directions.

F Oakland Touchdown #1 Contract

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: \$212.0 M

Status: Completed June 2010

The OTD #1 contract constructed the entire 1,000-foot-long westbound approach from the toll plaza to the Skyway. When open to traffic, the westbound approach structure will provide direct access to the westbound Skyway. In the eastbound direction, the contract will construct a portion of the eastbound structure and all of the eastbound foundations that are not in conflict with the existing bridge.

Status: MCM Construction, Inc. completed OTD #1 westbound and eastbound phase 1 on June 8, 2010.

G Oakland Detour

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: \$51.0 M

Status: In Construction

To ensure a simultaneous eastbound and westbound opening of the bridge by December 2013, the TBPOC has approved an acceleration plan that will construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. The detour realigns the existing bridge approach to the south to allow for construction of the remaining portion of OTD that was in conflict with the existing bridge.

Status: The westbound detour construction is in progress and is forecast to be completed in early 2012 pending weather or construction delays. The Burma Road extension access and the eastbound detour were completed in May 2011.

H Oakland Touchdown #2 Contract

Contractor: TBD

Approved Capital Outlay Budget: \$62.0 M

Status: In Design

The OTD #2 contract will complete the eastbound approach structure from the end of the Skyway to Oakland. This work is critical to the eastbound opening of the new bridge by December 2013.

Status: The TBPOC has approved an acceleration plan that will construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. OTD #2 is currently in design and the contract for construction will be advertised in October 2011 and awarded in April 2012.



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Other Contracts

A number of contracts needed to relocate utilities, clear areas of archeological artifacts, and prepare areas for future work have already been completed. The last major contract will be the eventual demolition and removal of the existing bridge, which by that time will have served the Bay Area for nearly 80 years. Following is a status of some the other East Span contracts.

East Span Interim Seismic Retrofit

Contractors: 1) California Engineering
2) Balfour Beatty

Approved Capital Outlay Budget: \$30.8 M

Status: Completed October 2000

After the 1989 Loma Prieta Earthquake, and before the final retrofit strategy was determined for the East Span, Caltrans completed an interim retrofit of the existing bridge to prevent a catastrophic collapse of the bridge should a similar earthquake occur before the East Span was completely replaced. The interim retrofit was performed under two separate contracts that lengthened pier seats, added some structural members, and strengthened areas of the bridge so they would be more resilient during an earthquake.

Stormwater Treatment Measures

Contractor: Diablo Construction, Inc.

Approved Capital Outlay Budget: \$18.3 M

Status: Completed December 2008

The Stormwater Treatment Measures contract implemented a number of best practices for the management and treatment of stormwater runoff. Focused on the areas around and approaching the toll plaza, the contract added new drainage and built new bio-retention swales and other related constructs.



Archeological Investigations



Existing East Span of the San Francisco-Oakland Bay Bridge



Stormwater Retention Basin

Yerba Buena Island Substation

Contractor: West Bay Builders

Approved Capital Outlay Budget: \$11.6 M

Status: Completed May 2005

This contract relocated an electrical substation just east of the Yerba Buena Island Tunnel in preparation for the new East Span.

Pile Installation Demonstration

Contractor: Manson and Dutra, Joint Venture

Approved Capital Outlay Budget: \$9.3 M

Status: Completed December 2000

While large-diameter battered piles are common in offshore drilling, the new East Span is one of the first bridges to use them in its foundations. To minimize project risks and build industry knowledge, a pile installation demonstration project was initiated to prove the efficacy of the proposed technology and methodology. The demonstration was highly successful and helped result in zero contract change orders or claims for pile driving on the project.

I Existing Bridge Demolition

Contractor: TBD

Approved Capital Outlay Budget: \$239.1 M

Status: In Design

Design work on the demolition of the existing bridge has started. The current plan is to complete the environmental clearance by December 2011 and obtain all permits by June 2012. To expedite opening of a new eastbound on-ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract or contracts yet to be determined.



New YBI Electrical Substation

J Electrical Cable Relocation

Contractor: Manson Construction

Approved Capital Outlay Budget: \$9.6 M

Status: Completed January 2008

A submerged cable from Oakland that is close to where the new bridge will touch down supplies electrical power to Treasure Island. To avoid any possible damage to the cable during construction, two new replacement cables were run from Oakland to Treasure Island. The extra cable was funded by the Treasure Island Development Authority.

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Antioch Bridge Seismic Retrofit Project

Contractor: California Engineering Contractors, Inc.

Approved Capital Outlay Budget: \$70.0 M

Status: 77% Complete as of August 2011

Serving the Delta region of the Bay Area, the Antioch Bridge takes State Route 160 traffic over the San Joaquin River, linking eastern Contra Costa County with Sacramento County. The current 1.8-mile-long steel plate girder bridge was opened in 1978 with one lane in each direction. The major retrofit measure for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents, and installing steel casings at all columns located at the Sherman Island approach slab bridge.

Status: Fabrication and testing of all isolation bearings has been completed and ready for site delivery. Of the 82 isolation bearings, 48 isolation bearings have been installed, at 24 of the 41 piers, or 59% complete. See isolation bearing photos for process of installation.

Fabrication of the steel cross bracing to be installed between the two column bents is 95 percent complete, (total 20 Piers to be retrofitted with cross bracing). In order to provide personnel access and prior to erecting the cross frames, access stair towers are erected to roughening existing concrete surfaces, drill and bonding of reinforcing steel for pedestals to connect the cross frames to the column bents. Roughening of existing concrete surfaces has been completed at nineteen of the twenty piers, or 95 % complete. Twenty-eight of the 30 stair towers have been completed. Sixteen pier cross frame retrofits have been installed, or 80% complete. Field painting of the cross bracing is the last major activity of completing the pier retrofit. Ten of the twenty cross frames have been painted, or 50% of the total. See pier bent retrofit photos for process of completing the pier cross frames.

Fabrication of the column casing to be installed at the Sherman Island have been completed and delivered to the site. Column casing installation is scheduled to start in September 2011.

Instrumentation is being placed on the structure and within the soil to provide information on strong motions during future seismic events. Drilling for the seismic monitoring casing is complete for down holes to install seismic sensors, 250, 160, 80, 50, 20 and 4 feet below the ground surface.



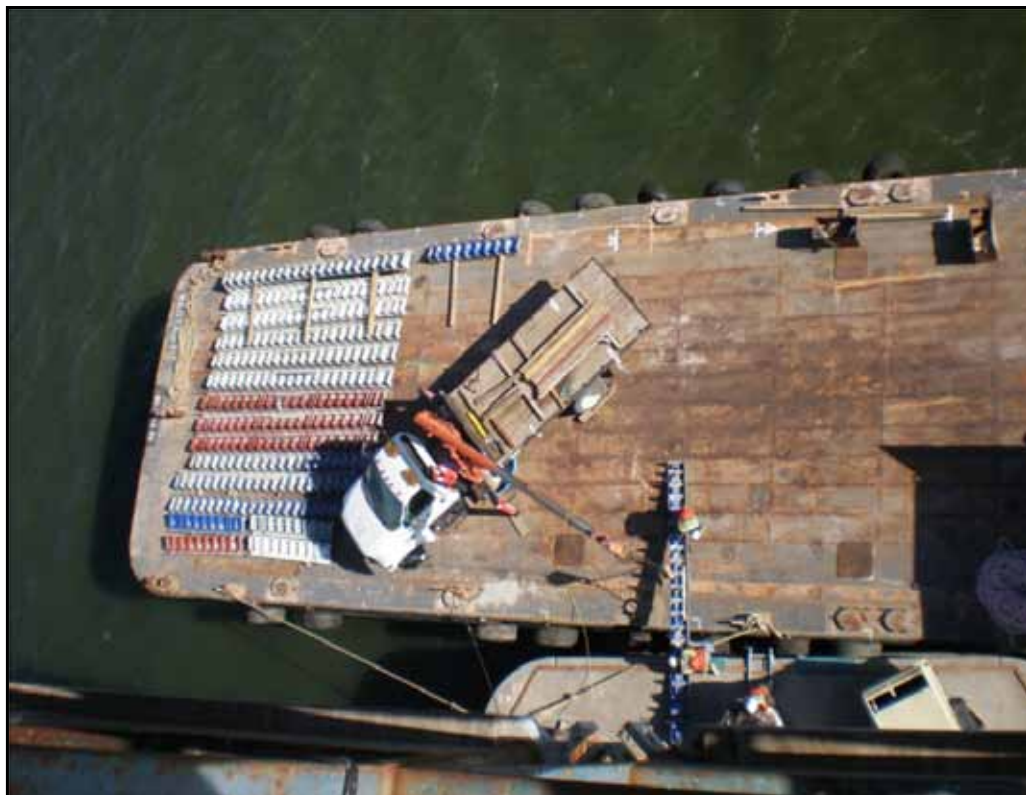
Jacking Pins to Be Installed through the Bent Caps Are Lifted into Place from a Marine Barge



Jacking Pins Installed through Cored Holes



Formed Concrete Pedestal Connection Between Existing Columns and New Cross Frames



Marine Barge Delivering Forms for Concrete Pedestals Connections between Existing Columns and New Cross Frames

Dumbarton Bridge Seismic Retrofit Project

Contractor: Shimmick Construction Company, Inc.

Approved Capital Outlay Budget: \$92.7 M

Status: 28% Complete as of August 2011

The current Dumbarton Bridge was opened to traffic in 1982 linking the cities of Newark in Alameda County and East Palo Alto in San Mateo County. The 1.6-mile long bridge has six lanes (three in each direction) and an eight-foot bicycle/pedestrian pathway. The bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast-prestressed concrete delta girders and steel box girders supported on reinforced concrete piers. The current retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings.

Status: The main bridge structure between piers 16 - 31 will be raised approximately five inches so isolation bearings can be installed to separate the superstructure from the substructure during seismic events. In preparation, the bridge piers are being widened with reinforced concrete to accommodate the new bearings. This month work continues with reinforcing steel and concrete placement at these main bridge piers.

Along the reinforced concrete slab approaches, the bent caps are being extended and tied to new 48" diameter steel piles that have been installed to strengthen the bridge. Bent cap extensions along the west trestle approach are complete and all east approach trestle bent columns have been constructed. The reinforced concrete bent cap extensions at the east approach trestle were cast in July 2011.

The concrete coring operation to widen the bent caps is complete at 10 of the 14 locations and the installation of the jacking frames inside the main bridge's steel box has been completed at 2 piers. A mockup of how the new isolation bearing will connect to steel box is currently being assembled at the site. Demolition work of the shear pin cover plate is ongoing at exterior cells at Pier 19 and at the interior cells at pier 20.



Steel Sheet Piles Driven for Cut-Off Walls for Installation of Drainage System and Flood Wall



Pier Cap Drill and bond Dowels at Pier 18



Pump Station Deck Rebar Being Placed



Welding Jacking Frame at Pier 18 Exterior Cell Eastbound Structure

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Other Completed Projects

In the 1990s, the State Legislature identified seven of the nine state-owned toll bridges for seismic retrofit. In addition to the San Francisco-Oakland Bay Bridge, these included the Benicia-Martinez, Carquinez, Richmond-San Rafael and San Mateo-Hayward bridges in the Bay Area, and the Vincent Thomas and Coronado bridges in Southern California. Other than the East Span of the Bay Bridge, the retrofits of all of the bridges have been completed as planned.

San Mateo-Hayward Bridge Seismic Retrofit Project

Project Status: Completed 2000

The San Mateo-Hayward Bridge seismic retrofit project focused on strengthening the high-rise portion of the span. The foundations of the bridge were significantly upgraded with additional piles.



High-Rise Section of San Mateo-Hayward Bridge

1958 Carquinez Bridge Seismic Retrofit Project

Project Status: Completed 2002

The eastbound 1958 Carquinez Bridge was retrofitted in 2002 with additional reinforcement of the cantilever thru-truss structure.

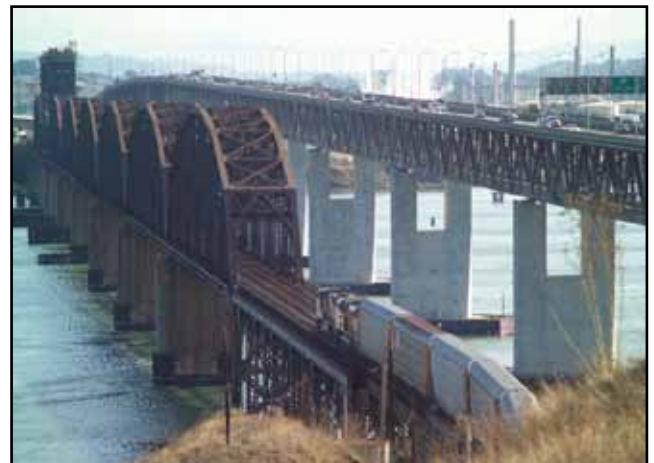


1958 Carquinez Bridge (foreground) with the 1927 Span (middle) under Demolition and the New Alfred Zampa Memorial Bridge (background)

1962 Benicia-Martinez Bridge Seismic Retrofit Project

Project Status: Completed 2003

The southbound 1962 Benicia-Martinez Bridge was retrofitted to "Lifeline" status with the strengthening of the foundations and columns and the addition of seismic bearings that allow the bridge to move during a major seismic event. The Lifeline status means the bridge is designed to sustain minor to moderate damage after a seismic event and to reopen quickly to emergency response traffic.



1962 Benicia-Martinez Bridge (right)

Richmond-San Rafael Bridge Seismic Retrofit Project

Project Status: Completed 2005

The Richmond-San Rafael Bridge was retrofitted to a “No Collapse” classification to avoid catastrophic failure during a major seismic event. The foundations, columns, and truss of the bridge were strengthened, and the entire low-rise approach viaduct from Marin County was replaced.



Richmond-San Rafael Bridge

Los Angeles-Vincent Thomas Bridge Seismic Retrofit Project

Project Status: Completed 2000

The Vincent Thomas Bridge is a 1,500-foot long suspension bridge crossing the Los Angeles Harbor in Los Angeles that links San Pedro with Terminal Island. The bridge was one of two state-owned toll bridges in Southern California (the other being the San Diego-Coronado Bridge). Opened in 1963, the bridge was seismically retrofitted as part of the TBSRP in 2000.



Los Angeles-Vincent Thomas Bridge

San Diego-Coronado Bridge Seismic Retrofit Project

Project Status: Completed 2002

The San Diego-Coronado Bridge crosses over San Diego Bay and links the cities of San Diego and Coronado. Opened in 1969, the 2.1-mile long bridge was seismically retrofitted as part of the TBSRP in 2002.



San Diego-Coronado Bridge





San Mateo Bridge

REGIONAL MEASURE 1 TOLL BRIDGE PROGRAM

REGIONAL MEASURE 1 PROGRAM

Interstate 880/State Route 92 Interchange Reconstruction Project

Project Status: In Construction

The Interstate 880/State Route 92 Interchange Reconstruction Project is the final project under the Regional Measure 1 Toll Bridge Program. Project completion fulfills a promise made to Bay Area voters in 1988 to deliver a slate of projects that help expand bridge capacity and improve safety on the bridges.

Interstate 880/State Route 92 Interchange Reconstruction Contract

Contractor: Flatiron/Granite

Approved Capital Outlay Budget: \$163.2 M

Status: 93% Complete as of August 2011

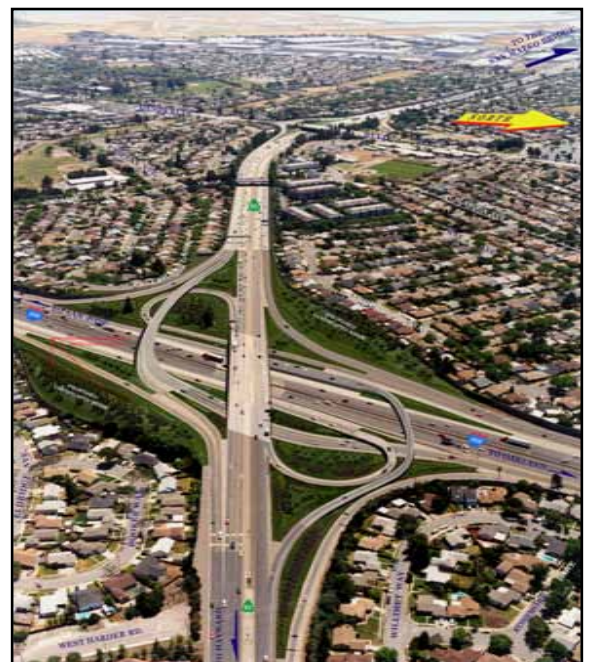
This corridor is consistently one of the Bay Area's most congested during the evening commute. This is due in part to the lane merging and weaving that is required by the existing cloverleaf interchange. The new interchange will feature direct freeway-to-freeway connector ramps that will increase traffic capacity and improve overall safety and traffic operations in the area. With the new direct-connector ramps, drivers coming off of the San Mateo-Hayward Bridge can access Interstate 880 without having to compete with traffic headed onto east Route 92 from south Interstate 880 (see progress photos on pages 78 and 79).



SR 92/880 WSCONN On Ramp



Aerial View of Construction Progress



Future Interstate 880/State Route 92 Interchange
(as simulated) Looking West toward San Mateo

Stage 1 – Construct East Route 92 to North Interstate 880 Connector

The new east Route 92 to north Interstate 880 connector (ENCONN) is the most critical fly-over structure for relieving congestion in the corridor. The ENCONN will be first used as a detour to allow for future stages of work, while keeping traffic flowing.

Status: ENCONN was completed and opened to detour traffic on May 16, 2009.

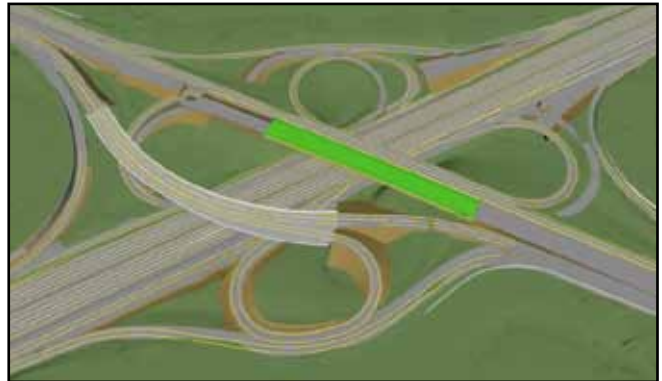


Stage 1 - Construct East Route 92 to North Interstate 880 Direct Connector

Stage 2 – Replace South Side of Route 92 Separation Structure

By detouring eastbound Route 92 traffic onto ENCONN, the existing separation structure that carries SR92 over I-880 can be replaced. The existing structure will be cut lengthwise, and then demolished and replaced separately. In this stage, the south side of the structure will be replaced, while west Route 92 and south Interstate 880 to east Route 92 traffic will stay on the remaining structure.

Status: Work on the south side of the separation structure is complete.



Stage 2 - Demolish and Replace South Side of Route 92 Separation Structure

Stage 3 – Replace North Side of Route 92 Separation Structure

Upon completion of Stage 2, the existing north side of the separation structure will be demolished and replaced. Its traffic will then be shifted onto the newly reconstructed south side.

Status: The north side of the structure opened to traffic in February 2011.



Stage 3 - Demolish and Replace North Side of Route 92 Separation Structure

Stage 4 – Final Realignment and Other Work

In addition to ENCONN and the separation structure, direct north 880 to west 92 connector (NWCONN) and west 92 to south 880 connector (WSCONN) remain to be completed. The new Eldridge Avenue pedestrian overcrossing is now complete.

Status: The NWCONN structure opened to traffic in October 2010. The WSCONN structure is scheduled to be fully opened in August 2011.



Stage 4 - Final Realignment and Other Work

REGIONAL MEASURE 1 PROGRAM

Other Completed Projects

San Mateo-Hayward Bridge-Widening Project

Project Status: Completed 2003

This project expanded the low-rise concrete trestle section of the San Mateo-Hayward Bridge to allow for three lanes in each direction to match the existing configuration of the high-rise steel section of the bridge.



Widening of the San Mateo-Hayward Bridge Trestle on Left

Richmond-San Rafael Bridge Rehabilitation Projects

Project Status: Completed 2006

Two major rehabilitation projects for the Richmond-San Rafael Bridge were funded and completed: (1) replacement of the western concrete approach trestle and ship-collision protection fender system; and (2) rehabilitation of deck joints and resurfacing of the bridge deck.

In 2005, along with the seismic retrofit of the bridge, the trestle and fender replacement work was completed as part of the same project. Under a separate contract in 2006, the bridge was resurfaced with a polyester concrete overlay along with the repair of numerous deck joints.



New Richmond-San Rafael Bridge West Approach Trestle under Construction

Richmond Parkway Construction Project

Project Status: Completed 2001

The final connections to the Richmond Parkway from Interstate 580 near the Richmond-San Rafael Bridge were completed in May 2001.

New Alfred Zampa Memorial (Carquinez) Bridge Project

Project Status: **Completed 2003**



New Alfred Zampa Memorial (Carquinez) Bridge Soon after Opening to Traffic, with Crockett Interchange Still under Construction

The new western span of the Carquinez Bridge, which replaced the original 1927 span, is a twin-towered suspension bridge with three mixed-flow lanes, a new carpool lane, shoulders and a bicycle/pedestrian pathway.

Benicia-Martinez Bridge Project

Project Status: **Completed 2009**



Benicia-Martinez Bridge Bicycle/Pedestrian Pathway Opened to the Public in August 2009

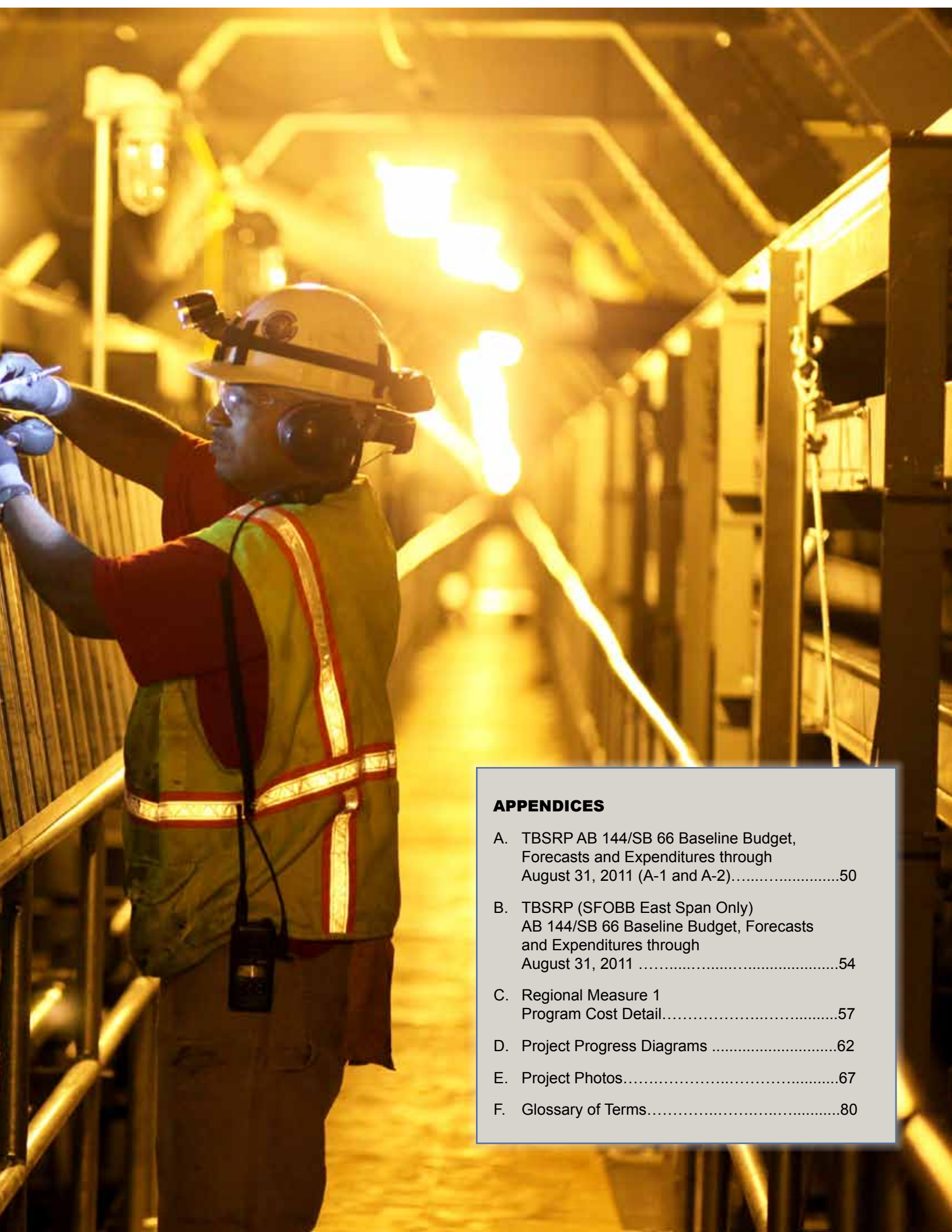
A two-year project to rehabilitate and reconfigure the original Benicia-Martinez Bridge began shortly after the opening of the new Congressman George Miller Bridge. The existing 1.2-mile roadway surface on the steel deck truss bridge was modified to carry four lanes of southbound traffic (one more than before)—with shoulders on both sides—plus a bicycle/pedestrian path on the west side of the span that connects to Park Road in Benicia and to Marina Vista Boulevard in Martinez. Reconstruction of the east side of the bridge and approaches was completed in August 2008. Reconstruction of the west side of the bridge and its approaches and construction of the bicycle/pedestrian pathway were completed in August 2009.

Bayfront Expressway (State Route 84) Widening Project

Project Status: **Completed 2004**

This project expanded and improved the roadway from the Dumbarton Bridge touchdown to the US 101/ Marsh Road interchange by adding additional lanes and turn pockets and improving bicycle/pedestrian access in the area.





APPENDICES

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Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through August 31, 2011 (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (08/2011)	Cost to Date (08/2011)	Cost Forecast (08/2011)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.3	218.0	1,177.3	988.7	1,275.8	98.5
Capital Outlay Construction	4,492.2	589.4	5,081.6	3,965.9	5,164.4	82.8
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Total	5,486.6	804.1	6,290.7	4,955.3	6,447.9	157.2
SFOBB West Approach Replacement						
Capital Outlay Support	120.0	(2.0)	118.0	118.4	118.5	0.5
Capital Outlay Construction	309.0	41.7	350.7	329.9	338.1	(12.6)
Total	429.0	39.7	468.7	448.3	456.6	(12.1)
SFOBB West Span Retrofit						
Capital Outlay Support	75.0	(0.2)	74.8	74.9	74.8	-
Capital Outlay Construction	232.9	(5.5)	227.4	227.4	227.4	-
Total	307.9	(5.7)	302.2	302.3	302.2	-
Richmond-San Rafael Bridge Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.8	127.0	-
Capital Outlay Construction	780.0	(90.5)	689.5	667.5	689.5	-
Total	914.0	(97.5)	816.5	794.3	816.5	-
Benicia-Martinez Bridge Retrofit						
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	0.1	28.8	28.8	28.8	-
Capital Outlay Construction	85.5	(0.1)	85.4	85.6	85.4	-
Total	114.2	-	114.2	114.4	114.2	-
San Mateo-Hayward Retrofit						
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	(0.1)	135.3	135.3	135.3	-
Total	163.5	(0.1)	163.4	163.4	163.4	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	(0.1)	42.0	42.0	42.0	-
Total	58.5	(0.1)	58.4	58.4	58.4	-
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	(0.3)	33.2	33.2	33.2	-
Capital Outlay Construction	70.0	(0.6)	69.4	69.4	69.4	-
Total	103.5	(0.9)	102.6	102.6	102.6	-

Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through August 31, 2011 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (08/2011)	Cost to Date (08/2011)	Cost Forecast (08/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Antioch Bridge						
Capital Outlay Support	-	31.0	31.0	14.2	34.7	3.7
Capital Outlay Support by BATA				6.2		
Capital Outlay Construction	-	70.0	70.0	33.2	56.9	(13.1)
Total	-	101.0	101.0	53.6	91.6	(9.4)
Dumbarton Bridge						
Capital Outlay Support	-	56.0	56.0	22.3	57.2	1.2
Capital Outlay Support by BATA				6.0		
Capital Outlay Construction	-	92.7	92.7	16.1	88.8	(3.9)
Total	-	148.7	148.7	44.4	146.0	(2.7)
Subtotal Capital Outlay Support	1,433.1	295.6	1,728.7	1,502.1	1,832.6	103.9
Subtotal Capital Outlay	6,286.8	696.9	6,983.7	5,712.0	7,036.9	53.2
Subtotal Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Miscellaneous Program Costs	30.0	-	30.0	25.5	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	989.2	8,774.2	7,240.3	8,907.2	133.0
Net Programmatic Risks*	-	-	-	-	66.9	66.9
Program Contingency	900.0	(592.2)	307.8	-	107.9	(199.9)
Total Toll Bridge Seismic Retrofit Program ¹	8,685.0	397.0	9,082.0	7,240.3	9,082.0	-

¹ Figures may not sum up to totals due to rounding effects.

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through August 31, 2011 (\$ Millions)

Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and Encumbrances as of August 2011 see Note (1)	Estimated costs not yet spent or Encumbered as of August 2011	Total Forecast as of August 2011
a	b	c	d	e	f = d + e
Other Completed Projects					
Capital Outlay Support	144.9	144.6	144.6	-	144.6
Capital Outlay	472.6	471.9	472.0	(0.2)	471.8
Total	617.5	616.5	616.6	(0.2)	616.4
Richmond-San Rafael					
Capital Outlay Support	134.0	127.0	126.8	0.2	127.0
Capital Outlay	698.0	689.5	667.4	22.1	689.5
Project Reserves	82.0	-	-	-	-
Total	914.0	816.5	794.2	22.3	816.5
West Span Retrofit					
Capital Outlay Support	75.0	74.8	74.9	(0.1)	74.8
Capital Outlay	232.9	227.4	227.3	0.1	227.4
Total	307.9	302.2	302.2	(0.0)	302.2
West Approach					
Capital Outlay Support	120.0	118.0	118.3	0.2	118.5
Capital Outlay	309.0	350.7	329.7	8.4	338.1
Total	429.0	468.7	448.0	8.6	456.6
SFOBB East Span - Skyway					
Capital Outlay Support	197.0	181.2	181.2	-	181.2
Capital Outlay	1,293.0	1,254.1	1,237.1	8.1	1,245.2
Total	1,490.0	1,435.3	1,418.3	8.1	1,426.4
SFOBB East Span - SAS - Superstructure					
Capital Outlay Support	214.6	375.5	329.6	146.6	476.2
Capital Outlay	1,753.7	2,046.8	1,564.9	514.0	2,078.9
Total	1,968.3	2,422.3	1,894.5	660.6	2,555.1
SFOBB East Span - SAS - Foundations					
Capital Outlay Support	62.5	37.6	37.6	-	37.6
Capital Outlay	339.9	307.3	301.3	3.7	305.0
Total	402.4	344.9	338.9	3.7	342.6
Small YBI Projects					
Capital Outlay Support	10.6	10.6	10.2	0.4	10.6
Capital Outlay	15.6	15.6	15.2	0.5	15.7
Total	26.2	26.2	25.4	0.9	26.3
YBI Detour					
Capital Outlay Support	29.5	90.7	87.1	1.1	88.2
Capital Outlay	131.9	492.8	465.9	16.9	482.8
Total	161.4	583.5	553.0	18.0	571.0
YBI- Transition Structures					
Capital Outlay Support	78.7	106.4	50.5	66.6	117.1
Capital Outlay	299.4	247.8	43.0	262.1	305.1
Total	378.1	354.2	93.5	328.7	422.2

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through August 31, 2011 (\$ Millions) Cont.

Contract	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and Encumbrances as of August 2011 see Note (1)	Estimated Costs not yet spent or Encumbered as of August 2011	Total Forecast as of August 2011
a	b	c	d	e	f = d + e
Oakland Touchdown					
Capital Outlay Support	74.4	108.9	86.6	30.6	117.2
Capital Outlay	283.8	339.0	209.4	124.5	333.9
Total	358.2	447.9	296.0	155.1	451.1
East Span Other Small Projects					
Capital Outlay Support	212.3	206.5	197.9	8.7	206.6
Capital Outlay	170.8	170.8	116.7	37.9	154.6
Total	383.1	377.3	314.6	46.6	361.2
Existing Bridge Demolition					
Capital Outlay Support	79.7	59.9	1.2	39.9	41.1
Capital Outlay	239.2	239.1	-	250.8	250.8
Total	318.9	299.0	1.2	290.7	291.9
Antioch Bridge					
Capital Outlay Support	-	31.0	14.2	14.3	28.5
Capital Outlay Support by BATA			6.2	-	6.2
Capital Outlay	-	70.0	25.7	31.2	56.9
Total	-	101.0	46.1	45.5	91.6
Dumbarton Bridge					
Capital Outlay Support	-	56.0	22.9	28.3	51.2
Capital Outlay Support by BATA			6.0	-	6.0
Capital Outlay	-	92.7	13.2	75.6	88.8
Total	-	148.7	42.1	103.9	146.0
Miscellaneous Program Costs	30.0	30.0	25.5	4.5	30.0
Total Capital Outlay Support	1,463.2	1,758.7	1,521.3	341.3	1,862.6
Total Capital Outlay	6,321.8	7,015.5	5,688.8	1,355.8	7,044.6
Program Total ¹	7,785.0	8,774.2	7,210.1	1,697.1	8,907.2

(1). Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.

(2). BSA provided a distribution of program contingency in December 2004 based in Bechtel Infrastructure Corporation input.

This Column is subject to revision upon completion of Department's risk assessment update.

(3) Total Capital Outlay Support includes program indirect costs.

¹ Figures may not sum up to totals due to rounding effects.

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through August 31, 2011 (\$ Millions)

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (08/2011) e = c + d	Cost to Date (08/2011) f	Cost Forecast (08/2011) g	At- Completion Variance h = g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project						
East Span - SAS Superstructure						
Capital Outlay Support	214.6	160.9	375.5	335.4	476.2	100.7
Capital Outlay Construction	1,753.7	293.1	2,046.8	1,564.9	2,078.9	32.1
Total	1,968.3	454.0	2,422.3	1,900.3	2,555.1	132.8
SAS W2 Foundations						
Capital Outlay Support	10.0	(0.8)	9.2	9.2	9.2	-
Capital Outlay Construction	26.4	-	26.4	26.5	26.4	-
Total	36.4	(0.8)	35.6	35.7	35.6	-
YBI South/South Detour						
Capital Outlay Support	29.4	61.3	90.7	87.2	88.2	(2.5)
Capital Outlay Construction	131.9	360.9	492.8	465.9	482.8	(10.0)
Total	161.3	422.2	583.5	553.1	571.0	(12.5)
East Span - Skyway						
Capital Outlay Support	197.0	(15.8)	181.2	181.2	181.2	-
Capital Outlay Construction	1,293.0	(38.9)	1,254.1	1,237.1	1,245.2	(8.9)
Total	1,490.0	(54.7)	1,435.3	1,418.3	1,426.4	(8.9)
East Span - SAS E2/T1 Foundations						
Capital Outlay Support	52.5	(24.1)	28.4	28.4	28.4	-
Capital Outlay Construction	313.5	(32.6)	280.9	274.8	278.6	(2.3)
Total	366.0	(56.7)	309.3	303.2	307.0	(2.3)
YBI Transition Structures (see notes below)						
Capital Outlay Support	78.7	27.7	106.4	51.8	117.1	10.7
Capital Outlay Construction	299.3	(51.5)	247.8	55.4	305.1	57.3
Total	378.0	(23.8)	354.2	107.2	422.2	68.0
* YBI- Transition Structures						
Capital Outlay Support			16.4	16.4	16.5	0.1
Capital Outlay Construction			-	-	-	-
Total			16.4	16.4	16.5	0.1
* YBI- Transition Structures Contract No. 1						
Capital Outlay Support			57.0	26.8	67.1	10.1
Capital Outlay Construction			185.5	55.4	222.4	36.9
Total			242.5	82.2	289.5	47.0
* YBI- Transition Structures Contract No. 2						
Capital Outlay Support			32.0	8.6	32.5	0.5
Capital Outlay Construction			59.0	-	79.4	20.4
Total			91.0	8.6	111.9	20.9
* YBI- Transition Structures Contract No. 3 Landscape						
Capital Outlay Support			1.0	-	1.0	-
Capital Outlay Construction			3.3	-	3.3	-
Total			4.3	-	4.3	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through August 31, 2011 (\$ Millions) Cont.

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (08/2011) e = c + d	Cost to Date (08/2011) f	Cost Forecast (08/2011) g	At- Completion Variance h = g - e
Oakland Touchdown (see notes below)						
Capital Outlay Support	74.4	34.5	108.9	86.6	117.2	8.3
Capital Outlay Construction	283.8	55.2	339.0	209.4	333.9	(5.1)
Total	358.2	89.7	447.9	296.0	451.1	3.2
*OTD Prior-to-Split Costs						
Capital Outlay Support			21.7	20.0	21.7	-
Capital Outlay Construction			-	-	-	-
Total			21.7	20.0	21.7	-
*OTD Submarine Cable						
Capital Outlay Support			0.9	0.9	0.9	-
Capital Outlay Construction			9.6	6.5	9.6	-
Total			10.5	7.4	10.5	-
*OTD No.1 (Westbound)						
Capital Outlay Support			47.3	50.9	51.7	4.4
Capital Outlay Construction			212.0	202.9	203.3	(8.7)
Total			259.3	253.8	255.0	(4.3)
*OTD No.2 (Eastbound)						
Capital Outlay Support			22.5	11.6	26.4	3.9
Capital Outlay Construction			62.0	-	58.6	(3.4)
Total			84.5	11.6	85.0	0.5
* Oakland Detour						
Capital Outlay Support			15.0	2.4	15.0	-
Capital Outlay Construction			51.0	-	58.0	7.0
Total			66.0	2.4	73.0	7.0
*OTD Electrical Systems						
Capital Outlay Support			1.5	0.8	1.5	-
Capital Outlay Construction			4.4	-	4.4	-
Total			5.9	0.8	5.9	-
Existing Bridge Demolition						
Capital Outlay Support	79.7	(19.8)	59.9	0.8	41.1	(18.8)
Capital Outlay Construction	239.2	(0.1)	239.1	-	250.8	11.7
Total	318.9	(19.9)	299.0	0.8	291.9	(7.1)
YBI/SAS Archeology						
Capital Outlay Support	1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction	1.1	-	1.1	1.1	1.1	-
Total	2.2	-	2.2	2.2	2.2	-
YBI - USCG Road Relations						
Capital Outlay Support	3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction	3.0	-	3.0	2.8	3.0	-
Total	6.0	-	6.0	5.5	6.0	-
YBI - Substation and Viaduct						
Capital Outlay Support	6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction	11.6	-	11.6	11.3	11.6	-
Total	18.1	-	18.1	17.7	18.1	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through August 31, 2011 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (08/2011)	Cost to Date (08/2011)	Cost Forecast (08/2011)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Oakland Geofill						
Capital Outlay Support	2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction	8.2	-	8.2	8.2	8.2	-
Total	10.7	-	10.7	10.7	10.7	-
Pile Installation Demonstration Project						
Capital Outlay Support	1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction	9.3	-	9.3	9.2	9.3	-
Total	11.1	-	11.1	11.0	11.1	-
Stormwater Treatment Measures						
Capital Outlay Support	6.0	2.2	8.2	8.2	8.2	-
Capital Outlay Construction	15.0	3.3	18.3	16.8	18.3	-
Total	21.0	5.5	26.5	25.0	26.5	-
Right-of-Way and Environmental Mitigation						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay & Right-of-Way	72.4	-	72.4	51.7	80.4	8.0
Total	72.4	-	72.4	51.7	80.4	8.0
Sunk Cost - Existing East Span Retrofit						
Capital Outlay Support	39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction	30.8	-	30.8	30.8	30.8	-
Total	70.3	-	70.3	70.3	70.3	-
Other Capital Outlay Support						
Environmental Phase	97.7	-	97.7	97.8	97.7	-
Pre-Split Project Expenditures	44.9	-	44.9	44.9	44.9	-
Non-project Specific Costs	20.0	(8.0)	12.0	3.2	12.0	-
Total	162.6	(8.0)	154.6	145.9	154.6	-
Subtotal Capital Outlay Support	959.3	218.0	1,177.3	988.7	1,275.8	98.5
Subtotal Capital Outlay Construction	4,492.2	589.4	5,081.6	3,965.9	5,164.4	82.8
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Total SFOBB East Span Replacement Project ¹	5,486.6	804.1	6,290.7	4,955.3	6,447.9	157.2

¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (08/2011)	Cost to Date (08/2011)	Cost Forecast (08/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project						
New Bridge						
Capital Outlay Support						
BATA Funding	84.9	7.2	92.1	91.9	92.1	-
Non-Bata Funding	-	0.1	0.1	0.1	0.1	-
Subtotal	84.9	7.3	92.2	92.0	92.2	-
Capital Outlay Construction			-			-
BATA Funding	661.9	94.6	756.5	753.7	756.5	-
Non-Bata Funding	10.1	-	10.1	10.1	10.1	-
Subtotal	672.0	94.6	766.6	763.8	766.6	-
Total	756.9	101.9	858.8	855.8	858.8	-
I-680/I-780 Interchange Reconstruction						
Capital Outlay Support						
BATA Funding	24.9	5.2	30.1	30.1	30.1	-
Non-Bata Funding	1.4	5.2	6.6	6.3	6.6	-
Subtotal	26.3	10.4	36.7	36.4	36.7	-
Capital Outlay Construction						
BATA Funding	54.7	26.9	81.6	77.1	81.6	-
Non-Bata Funding	21.6	-	21.6	21.7	21.7	0.1
Subtotal	76.3	26.9	103.2	98.8	103.3	0.1
Total	102.6	37.3	139.9	135.2	140.0	0.1
I-680/Marina Vista Interchange Reconstruction						
Capital Outlay Support	18.3	1.9	20.2	20.2	20.2	-
Capital Outlay Construction	51.5	4.9	56.4	56.1	56.4	-
Total	69.8	6.8	76.6	76.3	76.6	-
New Toll Plaza and Administration Building						
Capital Outlay Support	11.9	3.8	15.7	15.7	15.7	-
Capital Outlay Construction	24.3	2.0	26.3	25.1	26.3	-
Total	36.2	5.8	42.0	40.8	42.0	-
Existing Bridge & Interchange Modifications						
Capital Outlay Support						
BATA Funding	4.3	13.7	18.0	18.0	18.0	-
Non-Bata Funding	-	0.9	0.9	0.8	0.9	-
Subtotal	4.3	14.6	18.9	18.8	18.9	-
Capital Outlay Construction						
BATA Funding	17.2	32.8	50.0	37.2	50.0	-
Non-Bata Funding	-	9.5	9.5	-	9.5	-
Subtotal	17.2	42.3	59.5	37.2	59.5	-
Total	21.5	56.9	78.4	56.0	78.4	-
Other Contracts						
Capital Outlay Support	11.4	(0.9)	10.5	9.6	10.5	-
Capital Outlay Construction	20.3	3.3	23.6	18.5	23.6	-
Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Total	52.1	2.3	54.4	45.1	54.4	-

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (08/2011)	Cost to Date (08/2011)	Cost Forecast (08/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project continued...						
Subtotal BATA Capital Outlay Support	155.7	30.9	186.6	185.5	186.6	-
Subtotal BATA Capital Outlay Construction	829.9	164.5	994.4	967.7	994.4	-
Subtotal Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Subtotal Non-BATA Capital Outlay Support	1.4	6.2	7.6	7.2	7.6	-
Subtotal Non-BATA Capital Outlay Construction	31.7	9.5	41.2	31.8	41.3	0.1
Project Reserves	20.8	1.6	22.4	-	22.3	(0.1)
Total New Benicia-Martinez Bridge Project						
	1,059.9	212.6	1,272.5	1,209.2	1,272.5	-
Notes:	Includes EAs 00601_,00603_,00605_,00606_,00608_,00609_,0060A_,0060C_,0060E_,0060F_,0060G_,0060H_, and all Project Right-of-Way					
Carquinez Bridge Replacement Project						
New Bridge						
Capital Outlay Support	60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction	253.3	2.7	256.0	255.9	256.0	-
Total	313.8	2.4	316.2	316.1	316.2	-
Crockett Interchange Reconstruction						
Capital Outlay Support	32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction	73.9	(1.9)	72.0	71.9	72.0	-
Total	105.9	(2.0)	103.9	103.8	103.9	-
Existing 1927 Bridge Demolition						
Capital Outlay Support	16.1	(0.3)	15.8	15.8	15.8	-
Capital Outlay Construction	35.2	-	35.2	34.8	35.2	-
Total	51.3	(0.3)	51.0	50.6	51.0	-
Other Contracts						
Capital Outlay Support	15.8	0.9	16.7	16.5	16.7	-
Capital Outlay Construction	18.8	(1.2)	17.6	16.4	17.6	-
Capital Outlay Right-of-Way	10.5	(0.1)	10.4	9.9	10.4	-
Total	45.1	(0.4)	44.7	42.8	44.7	-
Subtotal BATA Capital Outlay Support						
	124.4	0.2	124.6	124.4	124.6	-
Subtotal BATA Capital Outlay Construction						
	381.2	(0.4)	380.8	379.0	380.8	-
Subtotal Capital Outlay Right-of-Way						
	10.5	(0.1)	10.4	9.9	10.4	-
Project Reserves						
	12.1	(9.7)	2.4	-	2.4	-
Total Carquinez Bridge Replacement Project ¹						
	528.2	(10.0)	518.2	513.3	518.2	-
Notes	Other Contracts include EAs 01301_,01302_,01303_,01304_,01305_,01306_,01307_,01308_,01309_,0130A_,0130C_,0130D_,0130F_,0130G_,0130H_,0130J_,00453_,00493_,04700_,00607_,2A270_,and 29920_ and all Project Right-of-Way					

¹ Figures may not sum up to totals due to rounding effects.

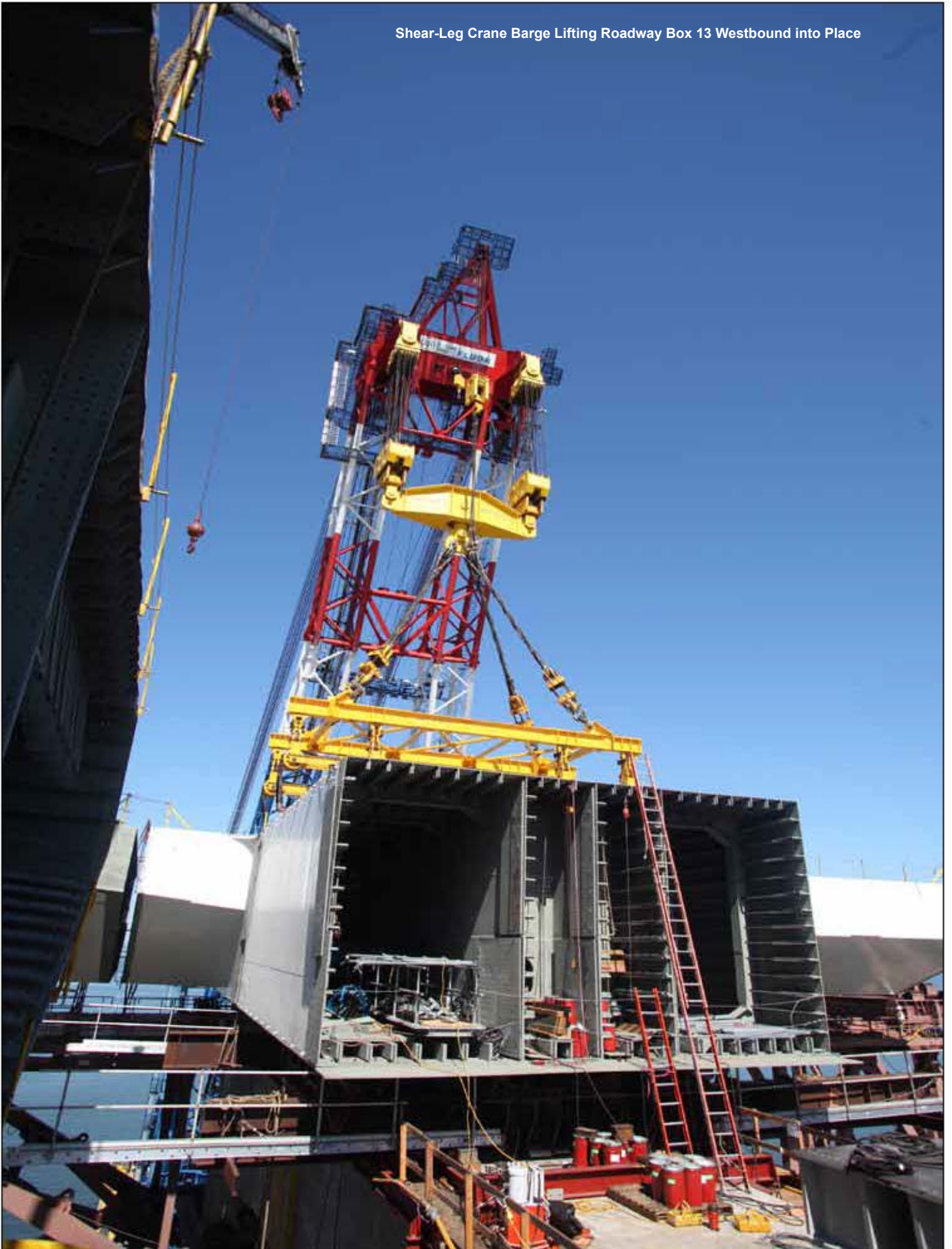
Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (08/2011)	Cost to Date (08/2011)	Cost Forecast (08/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Richmond-San Rafael Bridge Trestle. Fender, and Deck Joint Rehabilitation						
Capital Outlay Support						
BATA Funding	2.2	(0.8)	1.4	1.4	1.4	-
Non-BATA Funding	8.6	1.8	10.4	10.4	10.4	-
Subtotal	10.8	1.0	11.8	11.8	11.8	-
Capital Outlay Construction						
BATA Funding	40.2	(6.8)	33.4	33.3	33.4	-
Non-BATA Funding	51.1	-	51.1	51.1	51.1	-
Subtotal	91.3	(6.8)	84.5	84.4	84.5	-
Project Reserves	-	0.8	0.8	-	0.8	-
Total	102.1	(5.0)	97.1	96.2	97.1	-
Richmond-San Rafael Bridge Deck Overlay Rehabilitation						
Capital Outlay Support						
BATA Funding	4.0	(0.7)	3.3	3.3	3.3	-
Non-BATA Funding	4.0	(4.0)	-	-	-	-
Subtotal	8.0	(4.7)	3.3	3.3	3.3	-
Capital Outlay Construction	16.9	(0.6)	16.3	16.3	16.3	-
Project Reserves	0.1	0.3	0.4	-	0.4	-
Total	25.0	(5.0)	20.0	19.6	20.0	-
Richmond Parkway Project (RM 1 Share Only)						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	5.9	-	5.9	4.3	5.9	-
Total	5.9	-	5.9	4.3	5.9	-
San Mateo-Hayward Bridge Widening						
Capital Outlay Support	34.6	(0.5)	34.1	34.1	34.1	-
Capital Outlay Construction	180.2	(6.1)	174.1	174.1	174.1	-
Capital Outlay Right-of-Way	1.5	(0.9)	0.6	0.5	0.6	-
Project Reserves	1.5	(0.5)	1.0	-	1.0	-
Total	217.8	(8.0)	209.8	208.7	209.8	-
I-880/SR-92 Interchange Reconstruction						
Capital Outlay Support	28.8	35.8	64.6	60.4	64.6	-
Capital Outlay Construction						
BATA Funding	85.2	68.4	153.6	140.8	153.6	-
Non-BATA Funding	9.6	-	9.6	-	9.6	-
Subtotal	94.8	68.4	163.2	140.8	163.2	-
Capital Outlay Right-of-Way	9.9	7.3	17.2	14.6	17.2	-
Project Reserves	0.3	(0.3)	-	-	-	-
Total	133.8	111.2	245.0	215.8	245.0	-
Bayfront Expressway Widening						
Capital Outlay Support	8.6	(0.2)	8.4	8.4	8.4	-
Capital Outlay Construction	26.5	(1.5)	25.0	24.9	25.0	-
Capital Outlay Right-of-Way	0.2	-	0.2	0.2	0.2	-
Project Reserves	0.8	(0.3)	0.5	-	0.5	-
Total	36.1	(2.0)	34.1	33.5	34.1	-

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (08/2011)	Cost to Date (08/2011)	Cost Forecast (08/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
US 101/University Avenue Interchange Modification						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	3.8	-	3.8	3.7	3.8	-
Total	3.8	-	3.8	3.7	3.8	-
Subtotal BATA Capital Outlay Support	358.3	64.7	423.0	417.5	423.0	-
Subtotal BATA Capital Outlay Construction	1,569.8	217.5	1,787.3	1,744.1	1,787.3	-
Subtotal Capital Outlay Right-of-Way	42.5	6.2	48.7	42.2	48.7	-
Subtotal Non-BATA Capital Outlay Support	14.0	4.0	18.0	17.6	18.0	-
Subtotal Non-BATA Capital Outlay Construction	92.4	9.5	101.9	82.9	102.0	0.1
Project Reserves	35.6	(8.1)	27.5	-	27.4	(0.1)
Total RM1 Program	2,112.6	293.8	2,406.4	2,304.3	2,406.4	-
Notes:						
1 Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRP Expenses for EA 0438U_ and 04157_						
2 San Mateo-Hayward Bridge Widening includes EAs 00305_,04501_,04503_,04504_,04504_,04505_,04506_,04507_,04508_,04509_,27740_,27790_,04860_						

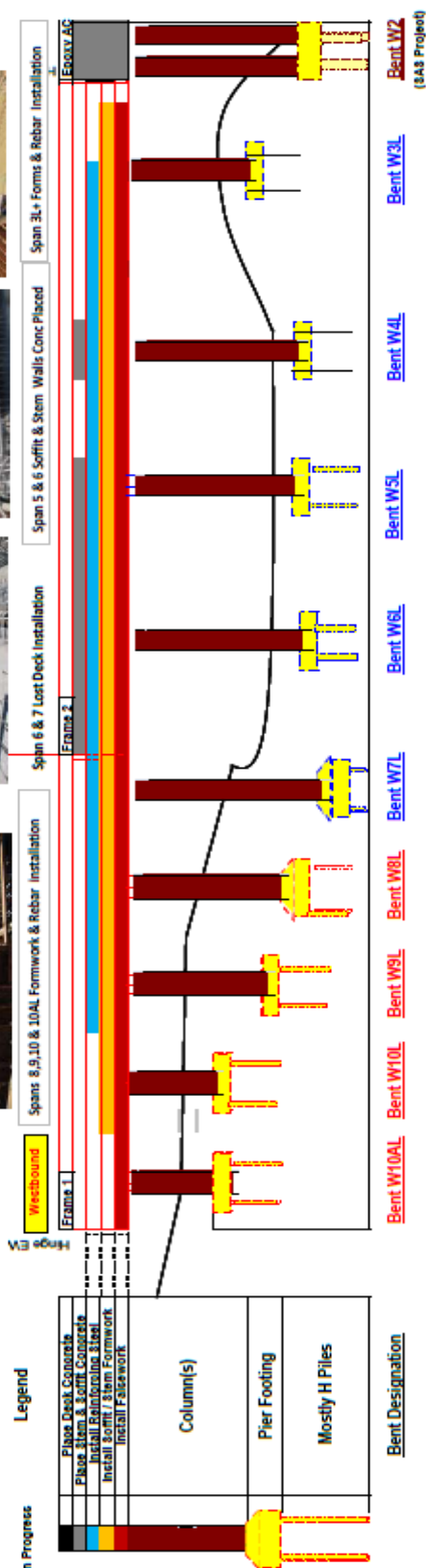
Shear-Leg Crane Barge Lifting Roadway Box 13 Westbound into Place



Appendix D: Progress Diagrams

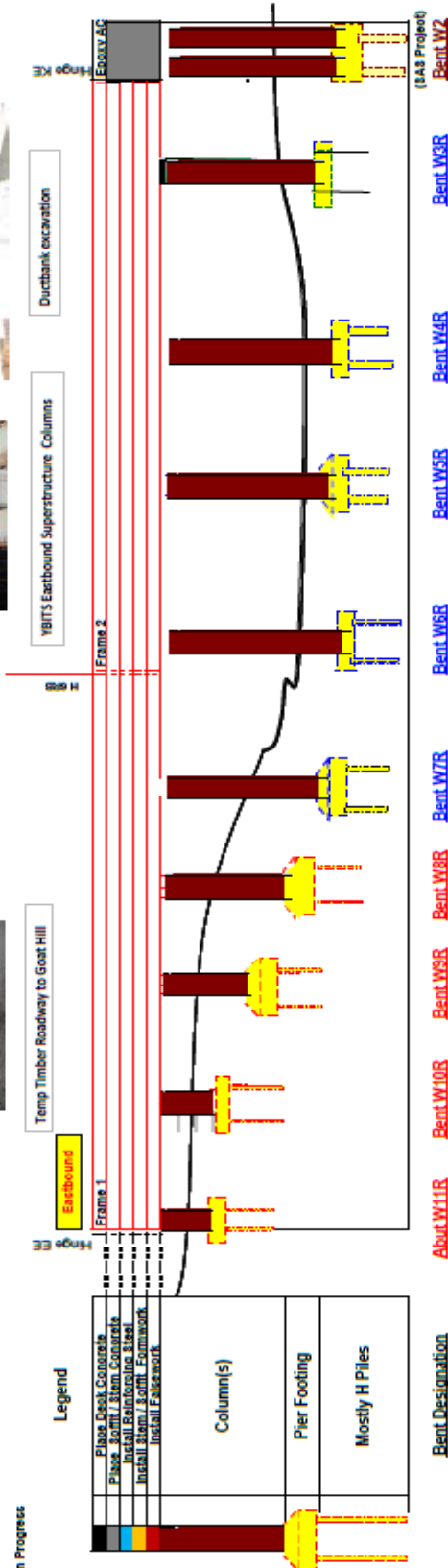
Yerba Buena Island Transition Structures

SFOBB SEISMIC RETROFIT PROJECT YBITS #1 PROGRESS DIAGRAM as of August 26, 2011

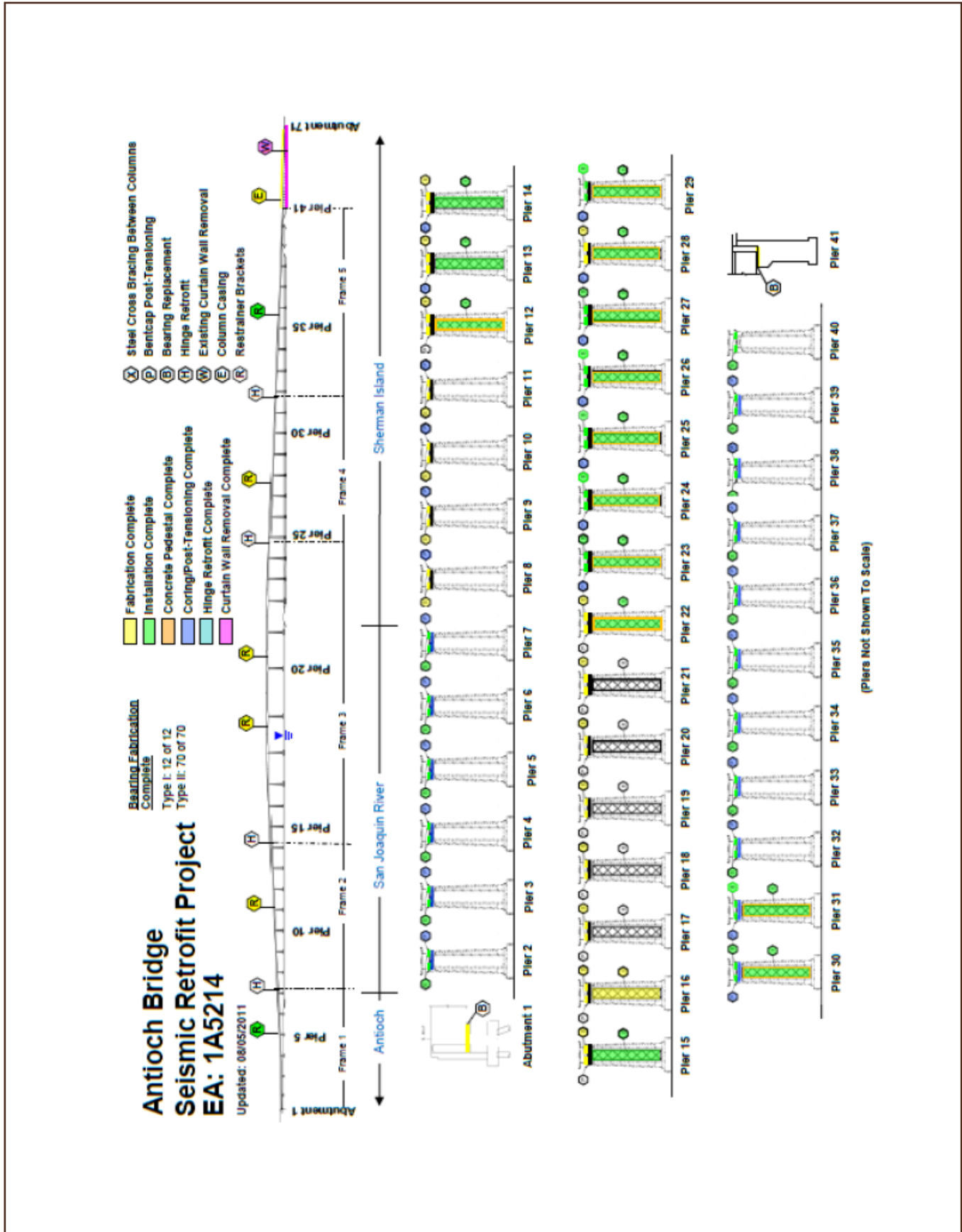


Note:

- W104L, W101L, W91L, W81L, W71L & W6L all have North and South Columns.
- EB On Ramp Structure is not included in this Diagram
- Progress Shown is based on North Columns



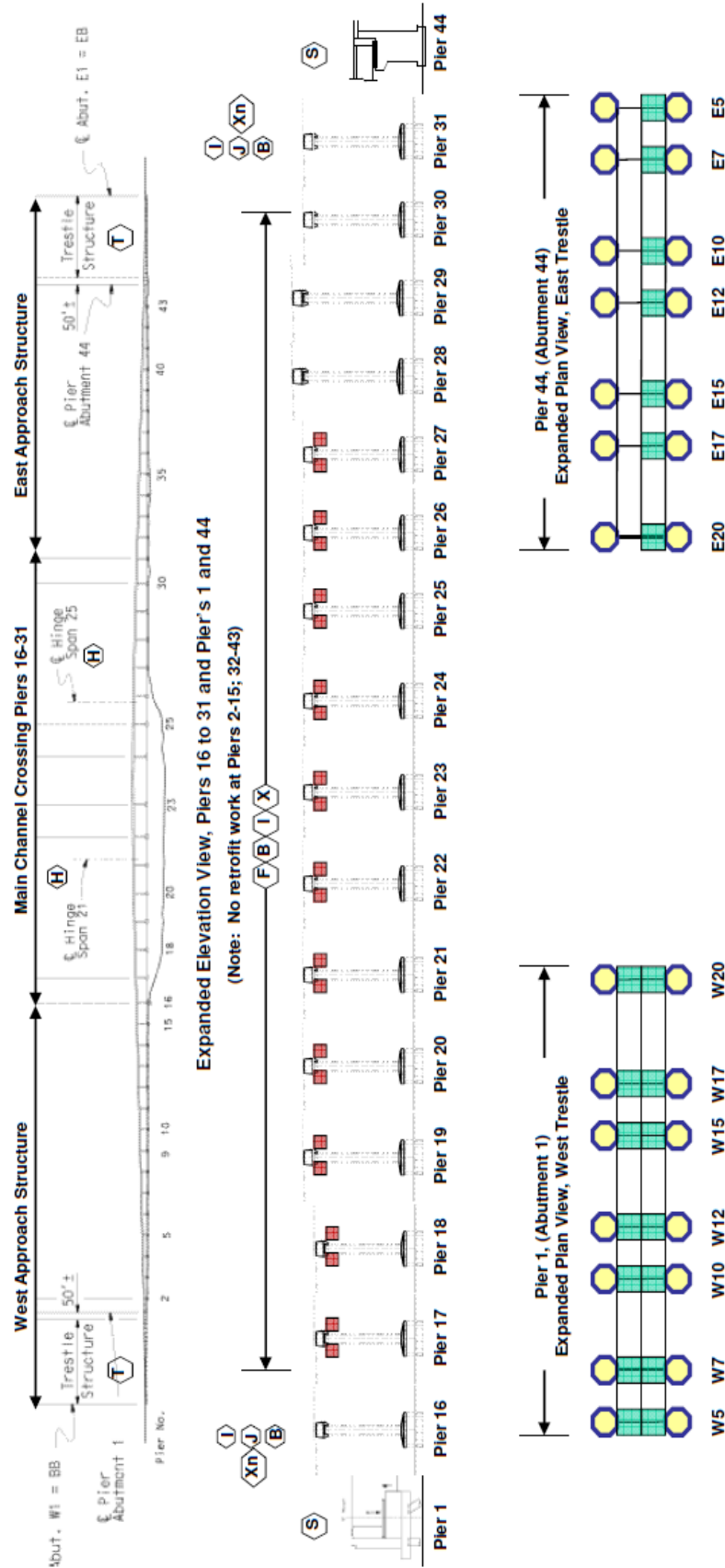
Appendix D: Progress Diagrams (cont.) Antioch Bridge



Dumbarton Bridge Seismic Retrofit Project EA: 04-1A5224

Updated: 6/3/2011

- | | | |
|----------------------------|----------------------------|----------------------------|
| Abutment Retrofit Complete | Trestle Piles Complete | Backwall Seat Retrofit |
| Footing Overlay Complete | Trestle Bent Caps Complete | Trestle Retrofit |
| Pier Cap Retrofit Complete | Trestle Columns Complete | New Steel Cross Frame |
| Hinge Retrofit Complete | Temp Platforms Installed | Pier Cap Retrofit |
| Isolation Bearing Complete | Bearing Fabrication Status | Footing Overlay |
| Steel Cross Frame Complete | Bearings: 0 of 96 | Isolation Bearing |
| | | Steel Cross Frame Retrofit |
| | | Hinge Retrofit |
| | | Seismic Joint |



(Piers Not Shown To Scale)





Project Photos



Removing the Shackle from Crossbeam 18 after It Was Placed
on top of the E2 Cap Beam

Appendix E: Project Progress Photographs

Self-Anchored Suspension Bridge Field Work



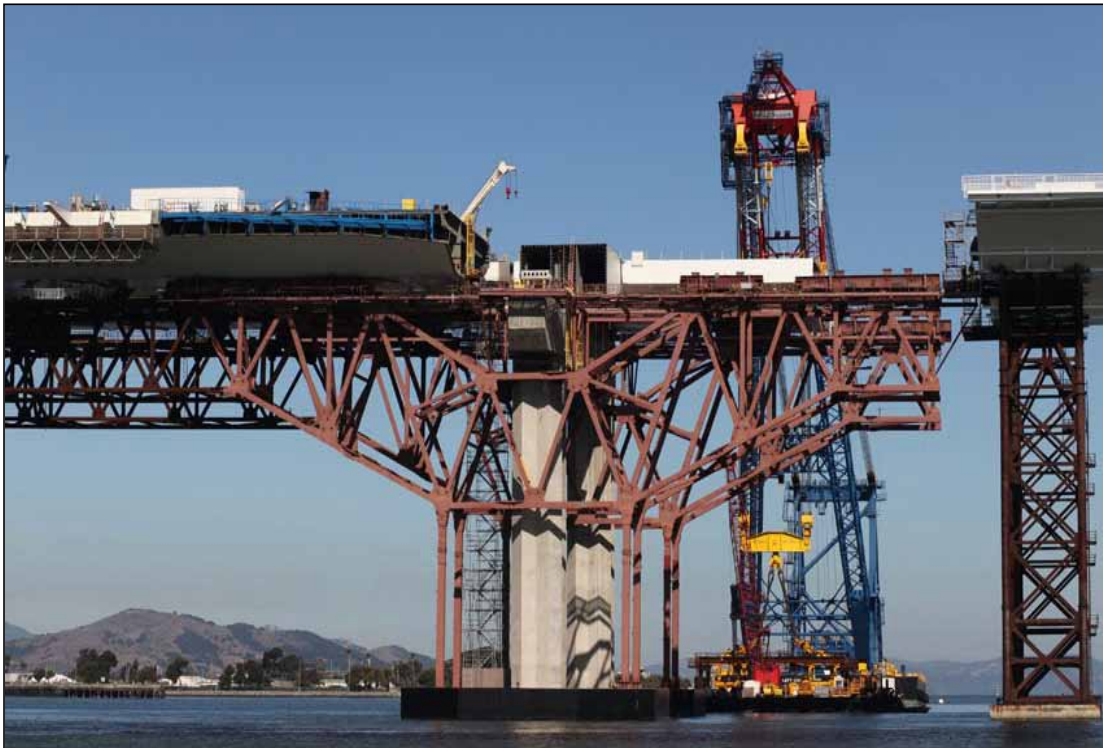
Cable Hauling System at South with Deviation Saddle



Tower Saddle with the Working Platform Prior to the Hauling System Being Installed



Crossbeam 18 Erection with the Two Main Span Catwalks Installed



Shear-Leg Crane Barge with Roadway Box 13 Westbound and Crossbeam 18



Suspension Bridge Roadway Box Being Placed



Removing the Shackle from Crossbeam 18 after It Was Placed on top of the E2 Cap Beam

Appendix E: Project Progress Photographs

92/880 Interchange



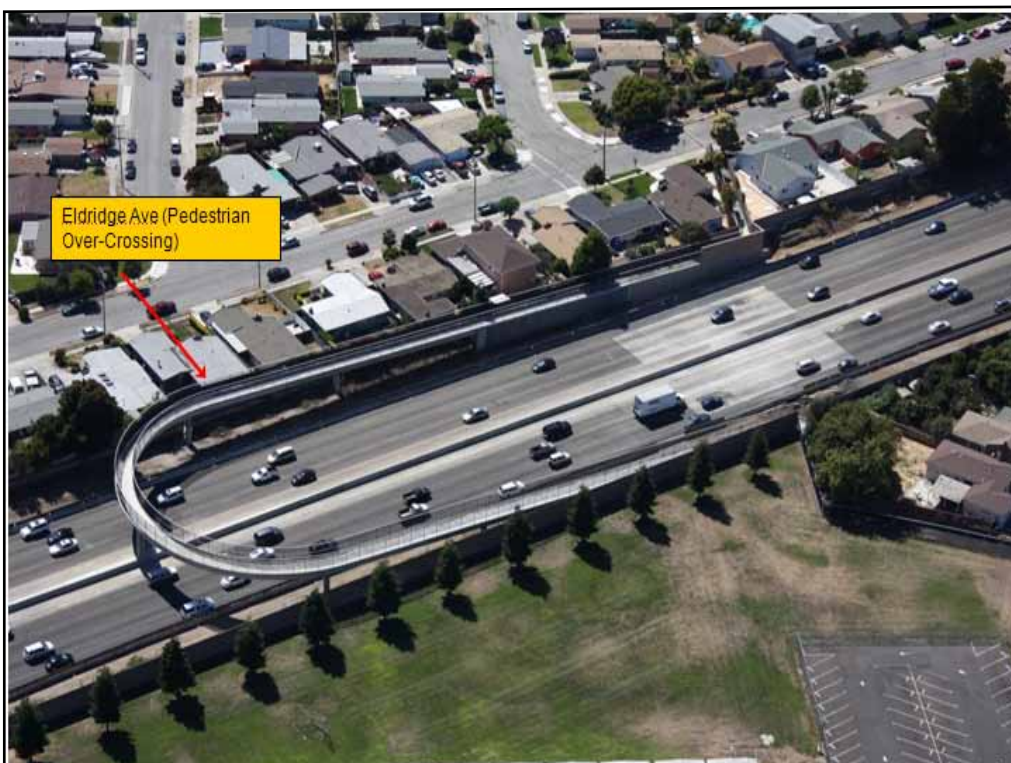
Under Drain Installation in Progress along J-7 Line



WSCONN Bridge Construction in Progress



Simulation of SR 880 Looking South



SR-92 Eldridge Avenue Pedestrian Over-Crossing

Appendix E: Project Progress Photographs

Antioch Bridge



Antioch Bridge -Sherman Island Piers Required a Temporary Construction Access Road Due to Soft Underlying Soils and Agricultural Flooding of Fields during Summer Months (Upper Photos Show Temporary Access Road in the Flooded and Dry Conditions)

Appendix E: Project Progress Photographs

Dumbarton Bridge



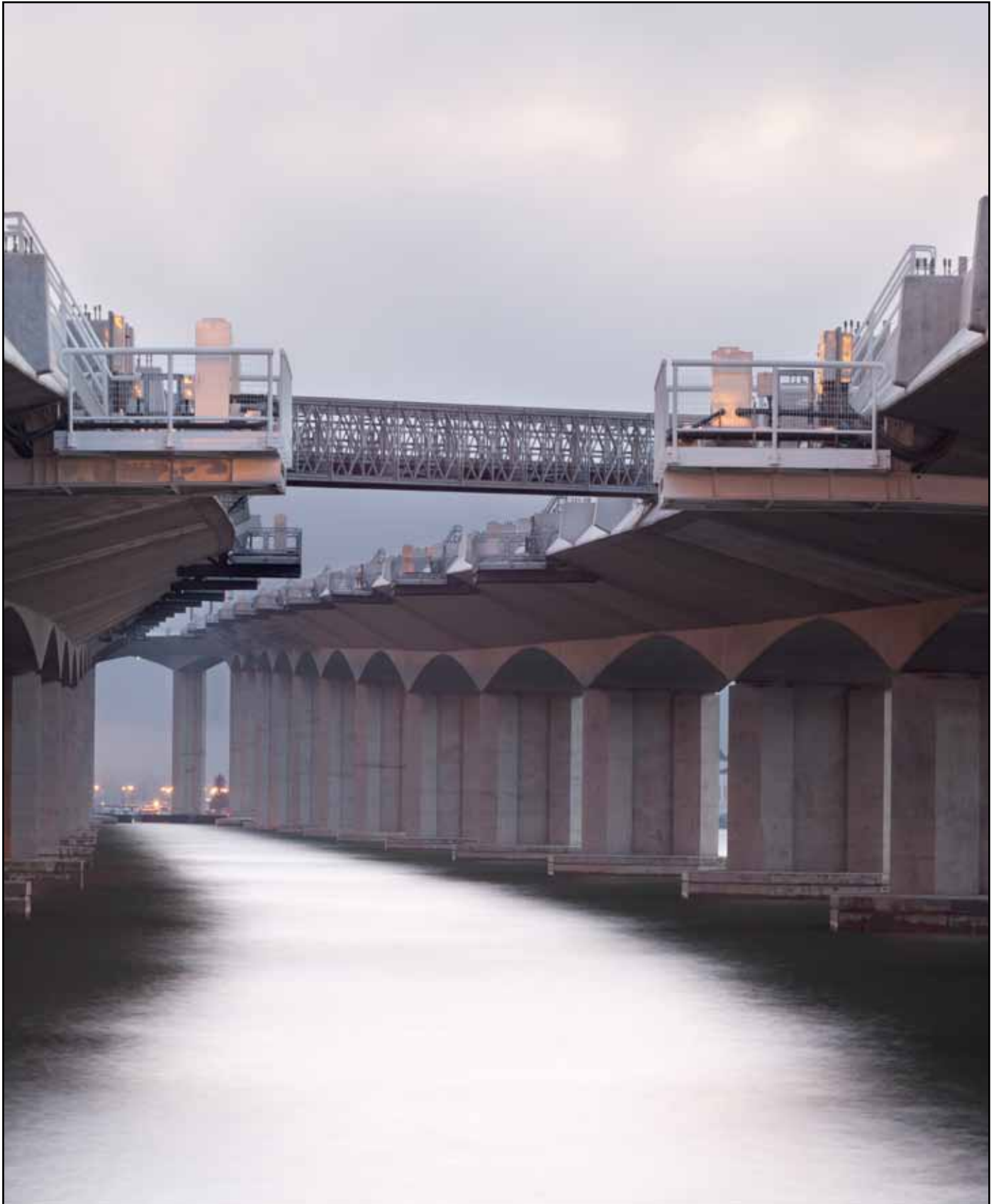
Dumbarton Bridge - Core Drilling of Bent Caps for Addition of Reinforcing Steel



Dumbarton Bridge - Wall Being Cast for Pump Station

Appendix E: Project Progress Photographs

Oakland Detour



Oakland Detour



Aerial View of the Newly Opened Eastbound Oakland Detour with the EBMUD Outfall Crossing Structure on the right, the Relocated Clear Channel Sign and the Westbound Oakland Detour under Construction

Appendix E: Project Progress Photographs

Yerba Buena Island Transition Structure #1 Westbound



Yerba Buena Island Transition Structures #1 Westbound Formwork Looking West



Hinge K Interface between the Self-Anchored Suspension Bridge and Yerba Buena Island Transition Structure #1 Westbound



Yerba Buena Island Transition Structures #1 Westbound Falsework Looking West

Appendix F: Glossary of Terms

Glossary of Terms

AB144/SB 66 BUDGET: The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

BATA BUDGET: The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

APPROVED CHANGES: For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

CURRENT APPROVED BUDGET: The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

COST TO DATE: The actual expenditures incurred by the program, project or contract as of the month and year shown.

COST FORECAST: The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

AT COMPLETION VARIANCE or VARIANCE (cost): The mathematical difference between the Cost Forecast and the Current Approved Budget.

AB 144/SB 66 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

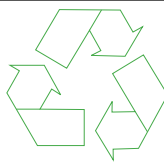
BATA PROJECT COMPLETE BASELINE: The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

PROJECT COMPLETE CURRENT APPROVED SCHEDULE: The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

PROJECT COMPLETE SCHEDULE FORECAST: The current projected date for the completion of the program, project, or contract.

SCHEDULE VARIANCE or VARIANCE (schedule): The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

% COMPLETE: % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



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The information in this report is provided in accordance with California Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production is \$1,574,873.73.





The San Francisco-Oakland Bay Bridge's Self-Anchored Suspension Bridge at Twilight



TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 28 , 2011

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans
Jason Weinstein, Senior Program Coordinator, BATA

RE: Agenda No. - 4a,b,c,d1,e,f
Item- San Francisco–Oakland Bay Bridge Updates

Recommendation:

For Information Only

Cost:

TBD

Schedule Impacts:

TBD

Discussion:

4a. Seismic Safety Opening (SSO) Schedule

See page 3 of this memo.

4b. SAS Update:

OBG lifts 13W and 13E have now been placed on the temporary works. Lifts 14W and 14E are the last two OBG sections to be placed. During the last month, the tower legs were pulled a little over 1.5 feet to the West. The tower legs will move back toward the East once the weight of the deck is transferred to them through the main cable. Work continues on the temporary systems that will be used to erect the permanent main cable. It is expected that the first cable strand will be pulled by the end of this year.

4c1. YBITS #1 Update:

Construction of the eastbound and westbound footings and columns is complete. Work continues on Frames 1 and 2 westbound with installation of concrete forms, rebar, and concrete placement for the stem walls and soffit. The discussion of Hinge K (Agenda Item 4c2) and the interdependence with the SAS contract will be discussed as part of the schedule discussion (on page 3). See Attachment 1 aerial photo for current YBITS #1 progress.

4d1. Oakland Detour Update:

The westbound (WB) detour construction is making good progress and is still forecast to be completed in early 2012. The current target for the WB only bridge closure is President's Day weekend in February 2012 pending weather or construction delays. It is still unknown at this time whether a 2- or 3-day bridge closure will be required to perform the work. Department staff is working with the contractor to determine the detailed schedule necessary to answer the 2- or 3-day bridge closure question. The schedule of activities required for the bridge closure will be more refined at the end of October 2011 and the time required for this closure will be determined. The goal will be to have the earliest scheduled closure possible with President's Day providing the outer boundary for a date. See Attachment 2 aerial photo for current Oakland Detour progress.

4d2. Oakland Detour Communications Plan:

The communications plan will be discussed at the meeting. The details of the plan are provided in a separate memo.

4e. Oakland Touchdown (OTD) No. 2 Update:

This contract will complete the eastbound approach structure from the end of the Skyway to the roadway section just west of the metering lights. The design of this project is going through its final reviews. The project is on target to advertise at the end of October 2011. Bids are scheduled to be opened in February 2012; the project awarded in April 2012, and notice to proceed to the contractor in May 2012.

4f. Existing SFOBB Demolition Update:

The demolition of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract or contracts yet to be determined. An environmental re-evaluation is being done to update the environmental and regulatory agencies with more specific information on the existing SFOBB demolition. It is expected that this re-evaluation should be completed by early 2012; however, this is largely dependent on timely review from the regulatory agencies.

The demolition work was addressed under the original Environmental Impact Statement (EIS) as well as the various permits issued for the project. Most of these documents were originally finalized in 2001. Since 2001, more detailed information has become known about the demolition and changes in the environment and law have occurred that require, at a minimum, re-evaluation of the EIS and amendments to existing permits. While these

processes are technically sequential, efforts are being made to have much of the actual work involved run concurrently to minimize the time required for the overall effort.

The more refined information regarding demolition includes refined estimates of quantities for pilings (used in temporary support structures, access trestles, etc.), use of cofferdams, and use of expansive grout for removal of concrete. Changes in law and the environment include newly listed fish species under state and federal endangered species law, changes in water quality standards and construction storm water discharge requirements. In addition, any changes to historic “setting” as it is defined under the National Historic Preservation Act and section 4f of the current federal transportation act could trigger further evaluation. Potential changes to setting would include preservation of Pier E1 (as discussed below), addition of bridgeheads, etc. This environmental work is currently on schedule to complete in March 2012 to meet YBITS#2 current advertisement date of March 26, 2012.

At the May 2011 TBPOC meeting, there was discussion regarding the possible reuse of E1 as part of the larger architectural issue discussion. Since then, various options have been discussed for this reuse. However, there are now some concerns with regard to the leaving the majority of E1 in place. The current environmental document and the re-evaluation call for the complete removal of E1 to approximately 3 feet below ground. Changing this language would open the project up to further environmental scrutiny and would have the potential to introduce delay to demolition projects. As there has not been a formal decision on the reuse of E1, the current YBITS #2 plans call for the complete removal of E1 as described in the current environmental document. At this time, there are several options for the TBPOC on reuse of E1, including the status quo of complete removal as part of YBITS#2, partial removal by YBITS#2 to be followed by complete removal/reuse (requiring a future additional environmental re-evaluation) by a later contract to allow more time to review options, or to address the issue now as part of the current environmental re-evaluation.

4a. Seismic Safety Opening (SSO) Schedule

Based on current contractual milestones and contractor schedules, SSO is projected to be in December 2013. However, staff is still confident that there are schedule opportunities that would allow achievement of the current Seismic Safety Opening date of August 28, 2013 (generally referred to as “Labor Day” for purposes of this memo). There may be opportunities to achieve an earlier opening date, possibly as early as Memorial Day 2013, but risk and uncertainties regarding cable erection and load transfer must be resolved before the real possibility of achieving an earlier date

can be analyzed with reasonable certainty.

Attachment 3 is a simplified corridor schedule that shows the current SSO schedule and alternative schedules for a Labor Day and Memorial Day SSO. As you move from the current to the Memorial Day schedule, all activities come close to being critical path and for purposes of any analysis all should be assumed to be potential critical path activities.

Schedule Mitigation/Acceleration

To achieve the earliest possible SSO, staff is recommending that the TBPOC discuss exploring the following schedule opportunities:

1. Resolution of the W2/Hinge K area (Agenda Item 4c2) – Past acceleration change orders, like CCO 160 on SAS and CCO 72 on YBITS1, addressed contract completion and immediate issues such as fabrication of OBG's 13 and 14 for SAS and completion of Frames 1 and 2 of YBITS #1, but consciously deferred the handoff between SAS and YBITS1 at Hinge K, as there was insufficient information available at the time they were negotiated to resolve this handoff. Currently, there is no contractual milestone in the SAS contract for transfer of the Hinge K area to the YBITS1 contract. The most recent SAS contractor schedule shows a transfer in May 2013, which, along with the 6.5 months needed to complete Hinge K per the current YBITS1 schedule, pushes SSO to December 2013. While there is the potential to complete the Hinge K work in a less number of weeks' time, an SAS handoff date must be established at this time to properly plan for SSO.

For a Labor Day Opening, the Hinge K transfer would need to be accelerated 5 months, which will have an impact on SAS work in the area post load transfer, including delays to falsework removal, installation of dehumidification systems, and potentially overall contract completion. Several different options have been discussed in the past to resolve this challenge including possible future change orders. The Department continues to have dynamic discussions with our contractors to evaluate different resolution options.

2. Resolution of incurred delays and acceleration of YBITS#1 - While work on the westbound frames is proceeding, there has been incurred YBITS#1 delay due to changes in the falsework plans after CT approval to provide SAS site access. A change order to mitigate this delay is critical to keep YBITS1 on schedule and ahead of SAS for SSO. Caltrans is currently negotiating with MCM to resolve this delay. The attached

simplified schedule shows two months of assumed delay to the current schedule; however, this is subject to the negotiations. Additional acceleration will also be needed in the event a Memorial Day schedule is eventually adopted.

3. Acceleration of critical Parallel Wire Strands (PWS) installation and Load

Transfer activities – This may be required to achieve a Memorial Day schedule.

However, these activities are the most risky and uncertain remaining on the project.

Waiting for more certainty on at least initial cable installation and load transfer operations in early 2012 while continuing to discuss additional acceleration opportunities with ABF would be prudent as opposed to trying to make assumptions about acceleration opportunities in a vacuum, without input from ABF. This can be done in a manner that prevents opportunities from being missed while allowing more informed decisions to be made with the full support of ABF.

Risks

While each schedule activity has assumptions for both early and late completion, the risk for delays should not be minimized. For example, a recent delivery of anchor rods had to be partly rejected after being damaged during shipment when the truck carrying them had an accident in Nevada. Unpredictable events do occur and every opportunity for schedule improvement should be explored.

Costs

Specific to the risks associated with Hinge K work, the Second Quarter 2011 Risk Management plan includes approximately \$39.5 million in risk (at the 50% probability level) for potential contract delays and potential claims.

Attachments:

1. Yerba Buena Island Transition Structures #1 Aerial Photo
2. Oakland Touchdown Detour Aerial Photo
3. Summary Schedule Comparison

**YERBA BUENA ISLAND
TRANSITION STRUCTURES
EA: 04-0120S4**

Labels and Components:

- OTD 1 & 2** (Overhead Transfer Deck 1 & 2)
- OTDD WB & EB** (28 - 39) (Overhead Transfer Deck Double Deck Westbound & Eastbound)
- SKYWAY**
- EXISTING BRIDGE**
- SAS** (San Francisco Area)
- WB** (Westbound)
- EB** (Eastbound)
- BIKE / PEDESTRIAN**
- HINGEK** (Hinge Key)
- YBID EAST TIE IN** (Yerba Buena Island Detour East Tie In)
- YBID - VIADUCT**
- YBI DETOUR**
- USCG** (United States Coast Guard)
- YBID - WEST TIE IN PHASE 2**
- WB OFF-RAMP**
- WB ON-RAMP, CLOSED**
- YBID - WEST TIE IN PHASE 1**
- WB FRAME 2**
- WB FRAME 1**
- HINGE 7LA**
- TRANSITION**
- W1, W2, W3, W4, W5, W6, W7, W8, W9, W10, W10A** (Work Item numbers)
- E1, E2, E17, E23** (Event numbers)
- T1** (Task 1)

SEPTMBER 07, 2011

SEPTEMBER 07, 2011

OAKLAND TOUCHDOWN DETOUR



SKYWAY

OTD1

WB FRAME 2

WB FRAME 1

EB FRAME 1

28

DEMO

CONSTRUCT

39

MOLE SUBSTATION

EBMUD
OVERPASS

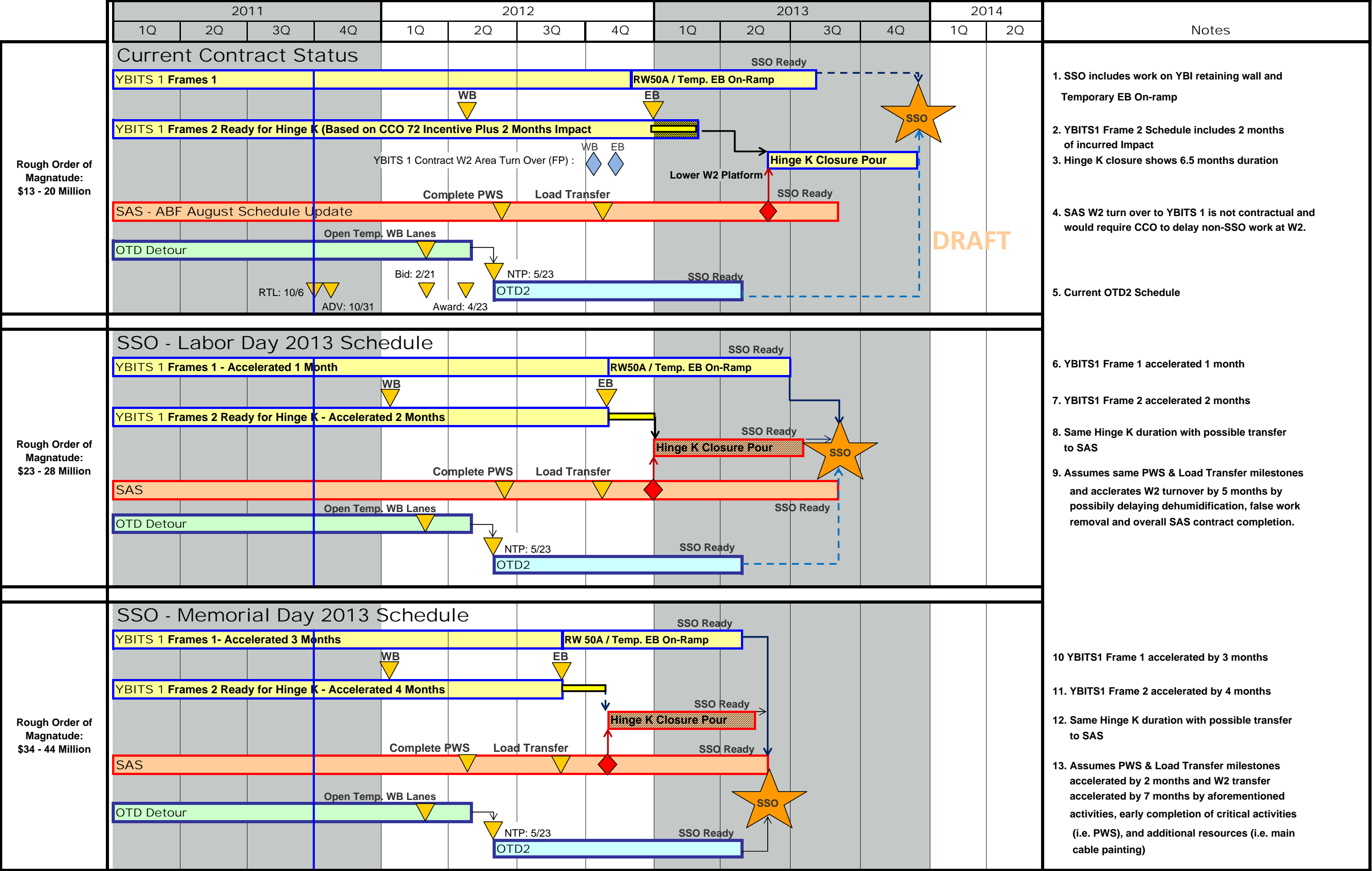
BURMA RD.

WB DETOUR

EB DETOUR

Summary Schedule Comparison

as of 9/28/2011



Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 28, 2011

FR: Bart Ney, Public Information Officer, Caltrans

RE: Agenda No. - 4d2
Item- San Francisco-Oakland Bay Bridge Updates
Oakland Detour
Communications Plan

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Public Information Officer Bart Ney will provide an update on the proposed Westbound Oakland Detour Communications Plan. The implementation of the westbound detour will require a full westbound deck closure; this will necessitate a more robust and aggressive outreach campaign than for the eastbound closure, which only required select overnight lane closures. This plan will be similar in scope and scale to the plan successfully implemented for the full bridge closure during Labor Day Weekend 2009, while enhancing and elevating elements from the eastbound detour plan, including greater leverage of social media, the project website, mobile device applications and a media buy. The plan will include a media buy, will enhance relationships with stakeholders (particularly businesses, events and other attractions and destinations), and will leverage the exposure of the Bay Bridge being featured on the television program "The Bachelor" in January 2012 to educate and inform the public and other stakeholders of a closure, possibly on President's Day weekend.

Elements of the communications plan will include:

- Talking Points
 - Closure Overview
 - Bridge Opening Strategy
 - Transit/Transportation Alternatives

- Outreach
 - Elected Official/Transit Agency Outreach Meetings
 - Media Outreach
 - Media Outreach Sessions
 - Press Releases
 - Fact Sheets
 - On-Site Public Information Officer Updates
 - Public Outreach
 - Public Service Announcements
 - Project Website
 - Social Media
 - Mobile Device Applications
 - Network Television – Leveraging “The Bachelor” and its 20-million member audience
 - External Website Information – work with third-party entities (e.g. travel sites, sports team, event venues) to disseminate information on their websites and social media channels
 - Distribute information at public venues and events
 - Distribute information sheets/flyers to stakeholders including local businesses, neighborhood organizations, travel and hospitality entities (e.g. airports, car rental agencies, visitors bureaus), entertainment and sports venues, city and county governments
 - Monthly Bay Bridge Newsletter
 - E-Alerts
 - Banners
 - Telephone Hotline
 - Changeable and Electronic Message Signs
 - Out-of-Town Traveler Notification
 - Trucking Industry Notification
 - Transit Agency Coordination
 - MTC-511 Coordination
 - Coordination with other Caltrans Districts
 - Caltrans Internal Coordination

Attachment(s):

N/A

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 28, 2011

FR: Jason Weinstein, Senior Program Coordinator, BATA

RE: Agenda No. - 5a

Item- Antioch and Dumbarton Bridge Seismic Retrofit Updates

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Antioch Bridge:

Time Elapsed: 71% (This includes 97 day time extension given under CCO 6)

Work Completed: 77%

Remaining contingency and supplemental funds \$1.2 million

The Antioch Bridge retrofit work continues to move smoothly. The current contractor schedule shows the retrofit work completed in early 2012 with electrical and other minor work being completed after. The last item of work will be the removal of the temporary access road which is on target to be finished by the currently forecasted completion date of May 2012. A detailed update of on-going field work is as follows:

- Suspended platform installation completed at 31 of 32 total piers.
- Stair tower installation completed at all 30 piers.
- Drilling for Drill and Bond activity completed all 20 piers.
- Post-tensioning completed at 34 of 38 total piers.
- Jacking stiffeners completed at 34 of 41 total piers.
- Fabrication of seismic bearings completed for all 82 bearings.
- Installation of seismic bearings completed for 54 of 82 total bearings.
- Fabrication completed for all 116 total steel column casings.

Memorandum

- Cross bracing fabrication is now 100% complete.
- Cross bracing is installed at 18 of 20 piers with painting completed at 13 piers
- 16 of 20 piers with concrete pedestals are complete.

Dumbarton Bridge:

Time Elapsed: 43%

Work Completed: 28%

Remaining contingency \$3.6 million

The Dumbarton Bridge retrofit continues to move in a positive direction this month. However, there is a complex submittal with respect to the jacking plan for the installation of the seismic isolation bearings that is the source of some concern. At the moment, the Department has a difference of opinion with the Contractor with respect to the jacking sequence proposed and its affect on the existing structure. If not resolved within the next couple of months, significant delays to the project are a real possibility. As a risk mitigation measure, staff feels that augmenting the Dumbarton project team with a consultant sub-team specializing in finite element analysis of systems similar to the Dumbarton Bridge is warranted. The results of the consultant sub-team's analysis would be used over the next couple of months to help determine if there are issues of concern with the jacking plan so as to avoid delay to the project's critical path.

Below is an update of on-going field work:

- Completed 90% of the pumping plant walls
- Installation of the 36 inch drainage pipe at the NW frontage road is still ongoing.
- 28 of the 32 deck access openings are complete. The remaining 4 locations are being assessed to see if they are needed. Access openings are recessed for the driving public.
- Installation of access platforms at Piers 17 thru 30 is complete, total 14 locations.
- Concrete coring operation is complete at 11 of the 14 Bent Caps that require modification. A total of 76 -3 inch cores are required at each Bent Cap.
- Rebar is complete at 4 of the 14 Bent Caps.
- Concrete has been place at 3 of 14 Bent Caps.
- Interior cell jacking frame are complete at 3 of 14 Piers.
- Exterior jacking frame started at Pier 17, all 14 locations remain.
- EPS isolation bearings have started production. The first set of bearings is still scheduled for testing in December, 2011 at UCSD.

Attachments:

N/A

ITEM 6: OTHER BUSINESS

No Attachments